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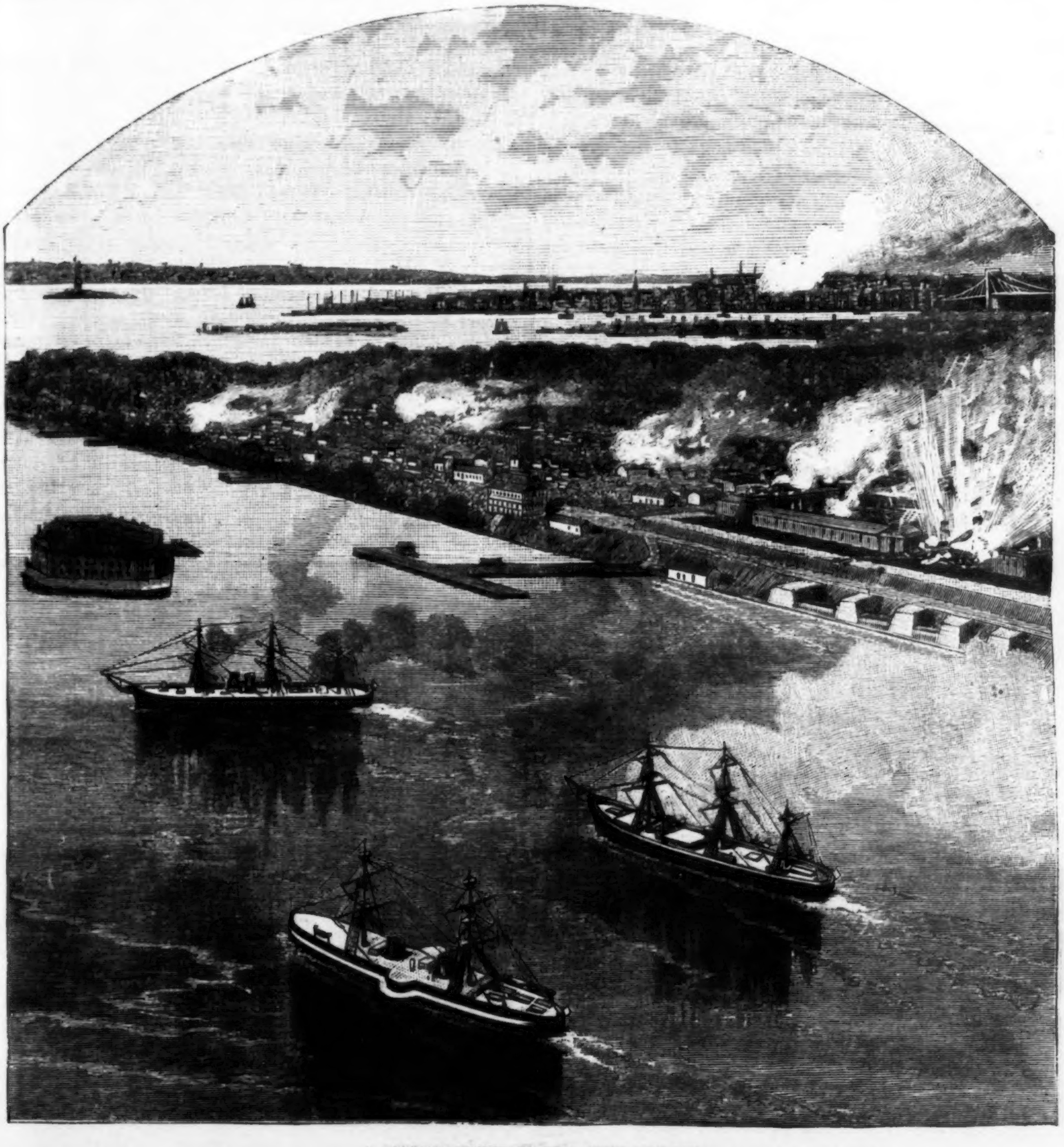
OUR UNPROTECTED SEACOAST.

By Joseph Nimmo, Jr.

The danger from naval attacks to which the principal seaports of the United States are now exposed, as the result of advances made in the arts of war by other nations and our own failure to provide the necessary instrumentalities of defense, has been fully and explicitly stated by our best-informed military officers, both of the



A HOSTILE FLEET IN NEW YORK HARBOR.

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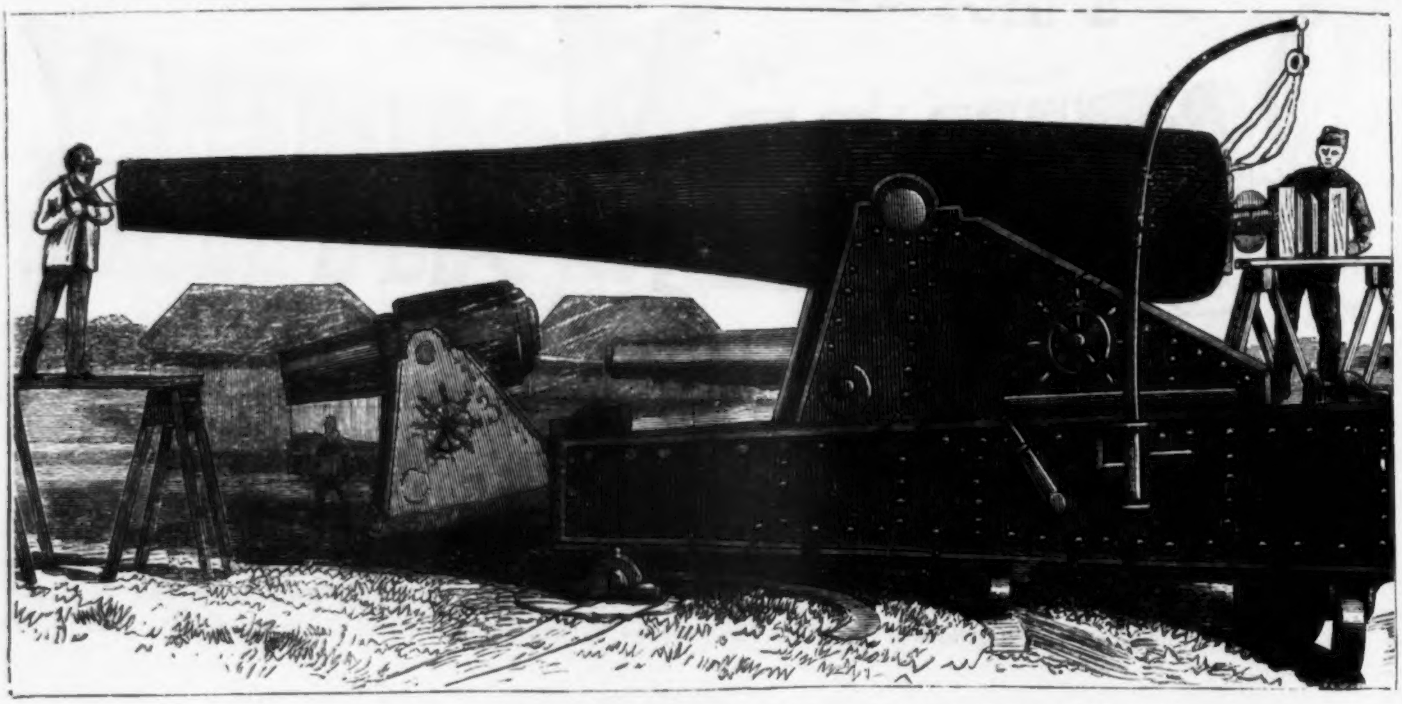
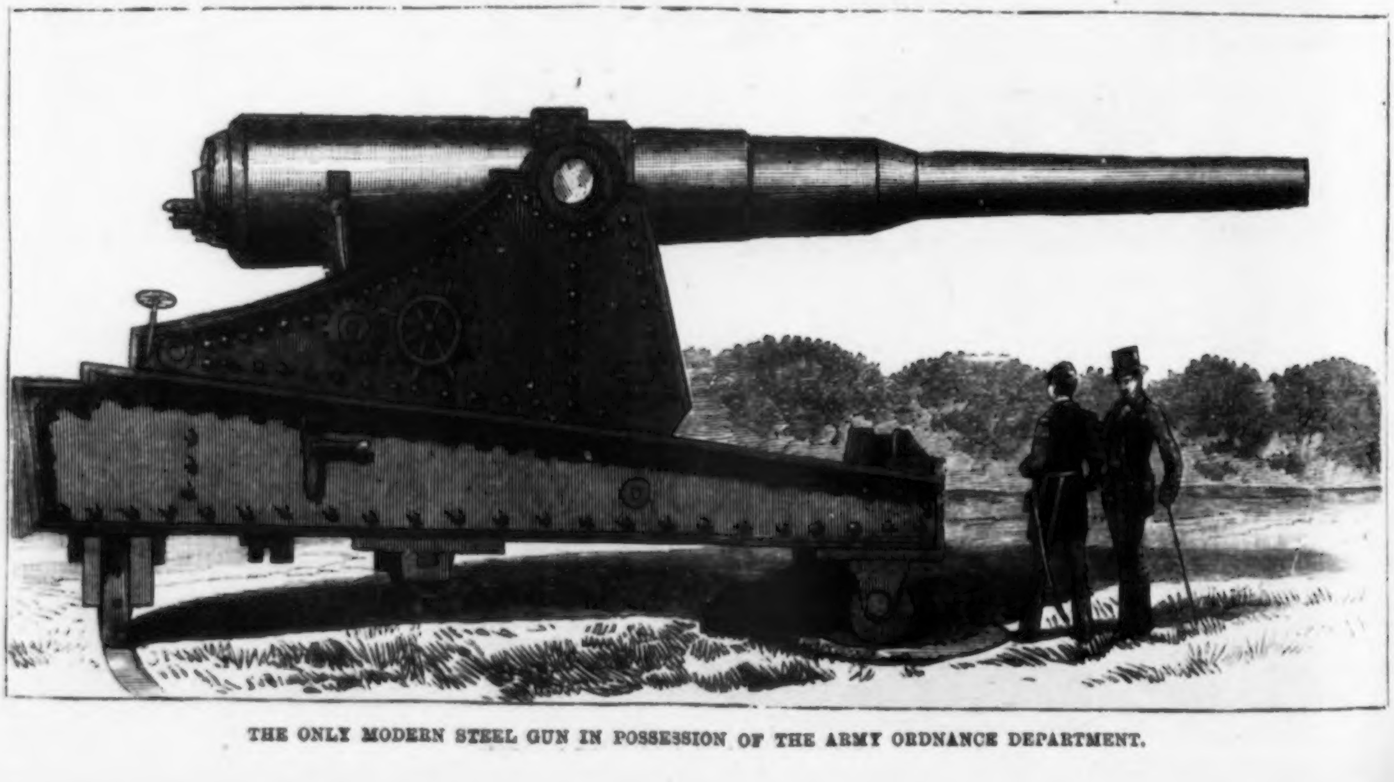


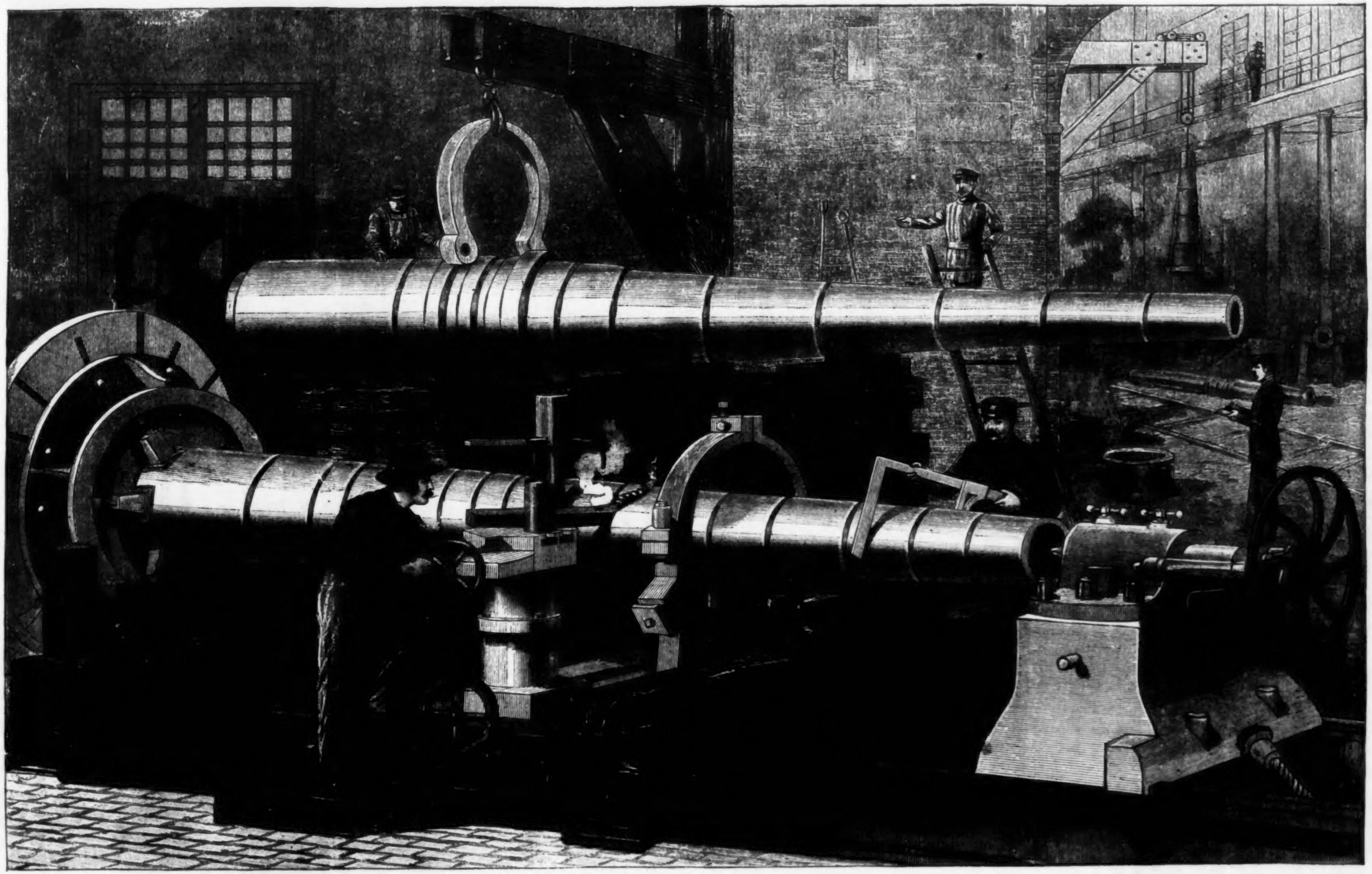
THE LARGEST CAST-IRON RIFLED GUN USED BY THE GOVERNMENT AT THE TESTING-STATIONS.

Army and the Navy. The President of the United States, in his recent Message, has clearly presented this fact, and the compromising attitude in which our neglect to provide adequate modern defenses places us in the eyes of all the world. The Secretary of War and the Secretary of the Navy have also clearly stated our lamentable need both of the means of offensive and defensive warfare, and have described the instrumentalities which should be provided at the earliest practicable moment in order to avert the possibility of appalling disaster. The exigencies of the case appeal to patriotism, and forbid that it shall be approached in any partisan spirit. It is a happy circumstance that so many of the leaders of the two great political parties of the country are now in accord as to the importance of at once adopting heroic measures of defense, and that the country has full assurance of the active co-operation of the Administration in whatever may be done in this direction by Congress.

At the close of the War of the Rebellion the United States was the best-armed nation on the globe, especially for defense. But enterprise and inventive genius have, since that time, revolutionized the methods of military science. Soon after the close of the war, the Artillery and Ordnance branches of our Army discovered that the advances which we had made, even in rifled cast-iron guns, and the construction of enormous smooth-bores, had rendered the gun superior in power to the resistance of the standard granite fort which had been for centuries, almost, the approved type of defensive works. That discovery stopped the construction of stone forts throughout the world. At this point, progress in military affairs virtually ceased in the United States. The country had had a surfeit of war. Thenceforward the fascination of material prosperity completely suppressed the martial spirit among us. During the last twenty years we have actually grown weaker, both in the means of offensive and defensive warfare, while almost every other maritime nation, by adopting the modern instrumentalities of



THE ONLY MODERN STEEL GUN IN POSSESSION OF THE ARMY ORDNANCE DEPARTMENT.



FINISHING HEAVY GUNS IN THE NAVY YARD, WASHINGTON.

military science, has grown stronger. The result is that, in the language of General Newton, we are to-day "left in a condition to invite attack from any third-rate Power piratically inclined." Our richest ports are, of all, the most defenseless, on account of their greater depth of water and capacity to admit the largest and most formidable ships. This is no secret of our own. In the language of the Secretary of War, "the utterly defenseless condition of our seacoast and lake frontier is now well understood by every civilized nation of the world."

Soon after the close of the late war, all of our monitor fleet built with wooden hulls went to decay; the formidable *New Ironsides* was burned, and our splendid frigates, after over twenty years of service, have either been condemned, or are approaching the time when they must be placed on the retired list. During this syncope of twenty years in the military affairs of this country, other nations have, with an energy which, by comparison with the inaction of this country, is surprising, supplied themselves with steel guns, armored forts, and all the other modern instrumentalities of war. Nearly twenty years ago the superiority of steel over cast-iron as a gun material dawned upon the mind of Frederick Krupp, the greatest of the modern gunmakers of Europe. For ten years he experimented before success rewarded his efforts. The whole art of metallurgy had to be revolutionized—and it was done. Krupp's purely experimental work involved the expenditure of an enormous amount of money. Large sums were also expended during the experimental stages of steel gunmaking at Le Creusot and St. Chamond, in France, by Sir Joseph Whitworth and Sir William Armstrong, in England, and at other establishments in Europe, before the superiority of the steel gun over every other form of ordnance known was fully established. When it became possible to forge seventy-five tons of homogeneous cast-steel in one mass, the art had passed beyond its experimental stage, and the steel gun had become a potential factor in the international relationships of the civilized world. This was followed by another most important invention, which was essential to the full development of the power of the steel gun, viz., the manufacture of the slow explosive known as brown, or "cocoa," powder. By the use of this explosive the velocity of the projectile is increased from the moment of ignition until the projectile leaves the mouth of the gun; and it has been found that in order to fully utilize the power generated by this powder, guns must be made of great length—even, in certain cases, forty-seven feet.

The progress which has been made in ordnance is very clearly set forth by Captain F. V. Green of the Army, comparing the 42-pounder of 1812, the 15-inch Rodman gun of 1862, and the 16-inch steel rifle of 1886, these being the typical large guns of the three periods:

Characteristics.	*42-pounder of* 1812.	15 *inch Rodman gun of* 1862.	16 *inch steel rifle of* 1886.
Length	10 feet	16 feet	45 ft. 6 in.
Weight	4 tons	20 tons	115 tons
Powder charge	10 lbs.	130 lbs.	800 lbs.
Weight of projectile	42 lbs.	450 lbs.	2,300 lbs.
Muzzle energy in foot tons	800	9,000	55,000

From this it appears that the 16-inch steel rifle of the present day has more than six times the energy (*i.e.*, destructive force) of the most powerful gun of 1862, and sixty-eight times the energy of the most powerful gun of 1812.

The maximum range of the 16-inch steel gun is now stated at about thirteen miles, and the maximum range of such guns on shipboard at about eight miles. It has been necessary to substitute steel projectiles for cast-iron projectiles, as the former can pierce and shatter obstacles before which the latter would fly into powder.

Simultaneously with the manufacture of steel guns, the great forged steel and iron manufacturers of Europe began a line of experiments in the manufacture of armor which might resist the force of steel projectiles. For a while the gun seemed to have the better of the struggle. In the bloodless battles of Meppen and Spezia, the most approved armor was smashed by guns which showed no signs of distress from the charges with which they were fired. But more recently Gruson's chilled iron armor, and thirty-six inches of compound steel and iron armor, have been proved to be sufficient to withstand the shots from the most powerful guns yet made. Simultaneously with these improvements the naval architects of Europe set about the construction of armored war-ships. It is said that at the present time the most powerful guns in the world are afloat.

The question naturally arises, What have our Army and Navy officers—those men educated in military science at the expense of the Government—done toward informing themselves and the country in regard to these wonderful advances in the arts of war, and in regard to our danger? The answer to this question is highly creditable to these men and to the country. The younger officers have pushed their habit of study acquired at West Point and at Annapolis into this new and inviting field of thought, and the older officers have vied with their juniors in trying to keep up with those changes in their profession which have required that they should once more become cadets. Mainly through the earnest effort and influence of our Army and Navy officers, two invaluable reports have been prepared on modern warfare and the needs of the country, viz., the report of the Gun Foundry Board, and of the Board on Fortifications and Other Defenses. These exhaustive reports bear the evidences of painstaking labor, and are the result of careful observations in this country and in Europe. For years the annual reports of the Chief of Engineers, of the Chief of Ordnance, and of the several Bureaus of the Navy Department, have faithfully set forth our dangers and our needs. They have, however, gained but little public attention. The attainments of our Army have commanded unstinted praise from eminent artillery authorities in Europe.

Major Mackinley, of the British Artillery, has expressed great admiration of the monograph prepared by Captain Rogers Birney, Jr., of our Army, upon "The Resistance of Built-up Steel Guns, and the Shrinkages Adapted to their Construction." High commendation has also been passed upon the annual reports of our Ordnance Department by Colonel Owens, of the Royal Artillery, and by the Institution of Civil Engineers of London.

Near the close of the last session of Congress the Select Committee of the Senate on Ordnance and War-ships submitted a report which did great credit to its distinguished chairman, Senator Hawley, of Connecticut.

A similar report of the Committee on Ordnance and Gunnery, of which the Hon. Samuel J. Randall, of Pennsylvania, is chairman, was also presented. This report also embraced much valuable information.

We have all the literature we need upon the subject of seacoast defenses. What we now want is steel guns and armored forts, and armored ships.

Notwithstanding the fact that the careful and most impartial tests of our Ordnance Department have time and again proved American steel to be superior to the steel of foreign countries, we have not yet to any great extent developed the art of forging "open-hearth" steel in large masses in this country.

Steel-gunmaking is still in its infancy here, but, as before stated, the Ordnance officers, both of our Army and Navy, have begun with a full knowledge of all that has been accomplished in Europe, and with the advantage of years spent in original investigations and careful study.

The whole success attained in constructing large steel guns in Germany, France and England appears to rest mainly upon the fact that works have been constructed in those countries capable of forging seventy-five tons of homogeneous steel in one mass, out of which can be made the part known as "the tube." The plant of works which accomplishes this costs millions of dollars. There are now seven or eight such establishments in Europe, most of them belonging to private parties. The largest are the works of Frederick Krupp, at Essen, Germany; of Schneider & Co., at Le Creusot, France; and of Sir Joseph Whitworth & Co., Manchester, England. It would require four or five years to erect in this country such establishments with their enormous hammers and presses.

It will be necessary for Congress to make a continuous appropriation large enough to enable the executive branch of the Government to enter into contracts with private parties which will justify them in embarking in such large undertakings. The Board of Fortifications mentions for this purpose the sum of $8,000,000. The failure to make such provisions is the sole cause of our backwardness in the art of making large steel guns. We should, however, now be able to avoid the enormous expense which in Europe has been involved in the experimental stages of the art of forging large masses of steel. Taking note, also, of the errors of method and of administration which have characterized the efforts of certain of the European Governments in providing themselves with steel guns and steel armor-plate, we ought to avoid the blunders and exploits upon the public treasury which have characterized the work of supplying armor and armament in other countries.

The steel guns belonging to our Army are one 8-inch gun completed and on trial at Sandy Hook, and one 8-inch and one 10-inch gun in course of construction. All the larger forgings of these guns were purchased in England, of Sir Joseph Whitworth, and the guns were fabricated at the West Point Foundry, a private establishment. The smaller hoops were made by the Midvale Steel Company, of Philadelphia, Pa.

There have been procured for the armament of the five monitors and three cruisers two 5-inch, twenty-one 6-inch, eight 8-inch, two 10-inch, and one 10½-inch steel guns, thirty-four in all, of which ten or twelve are finished. All the heavier parts of these guns above 6-inch calibre were purchased in England. The steel guns for the Navy are "fabricated" at the Washington Navy Yard.

For manifest and manifold reasons it is impracticable for the Government to embark in the industry of forging steel. All that the Government can properly do in providing such material for gun-construction is to enter into contracts, sufficiently large, with private parties, to justify them in erecting the necessary plant for its production. The Secretary of the Navy, in his recent annual report, gives expression to the following patriotic expression upon this subject:

"It is certainly a most lamentable circumstance that a country like ours, with its immense products of iron and steel, should be content to be dependent upon the manufacturers of any other nation for the fabrication of armor and high-powered guns, both of which are now essential and indispensable parts of a modern fighting ship. Whatever its commercial policy may be, for the creation of its necessary implements of war it should certainly be independent."

The steel guns fabricated under the supervision of our Army and Navy have demonstrated the fact that we are in this art fully up to the best work of the great steel-gunmakers of Europe. Commodore Sicard reported, in November, 1886, that the completed 6-inch guns had endured the required "proof" in an entirely satisfactory manner. The first 8-inch gun completed had also been satisfactorily tested. It had endured the rapid-firing test of ten rounds in fifteen minutes with the most satisfactory results. The report that this gun had burst was a *canard.* No steel gun made in this country has yet failed.

The law of this country in regard to ordnance requires that at least one gun of every new type adopted shall be tested "to extremity"—*i.e.*, actually burst, or so eroded or stretched as to be practically worthless. Any report, therefore, as to the explosion of any steel gun, or any other form of gun undergoing the Governmental test, would not necessarily indicate that it had failed to meet the required test, or that it was inferior as an arm of warfare. No gun has ever yet been made which cannot be burst by the force of gunpowder, as no steam-boiler has ever been constructed which cannot be burst by the force of steam.

Not less than 25,000 steel guns of various sizes and modes of construction have been made in the several countries of Europe. In a letter dated November 5th, 1886, Krupp stated that 19,464 steel guns of various sizes had been made at his establishment since the year 1847.

The per centage of steel guns which have failed is very small—much smaller than that of cast-iron guns of any form, and much smaller than the per centage of failures of cast-iron guns re-enforced with wrought-iron bands. The Ordnance Department of our Army regard rifled cast-iron guns, of over 8-inch calibre, as too unreliable for practical use, even with moderate charges. The failures of steel guns occurred chiefly during the experimental stages of the art. The cause of the bursting of others is attributable to bad material, faulty methods of construction, and bad workmanship. The fabrication of built-up steel guns is a high art. It involves almost as fine mechanism as the manufacture of astronomical telescopes, and bungling work has resulted in expensive failures.

It may here be observed that there are certain Army officers who maintain that steel guns cast solid, in one piece, are preferable to the forged steel built-up gun, fabricated by shrinking a "jacket" and hoops and bands around a central tube consisting of one piece. This opinion appears to be based upon a comparison between cast-steel guns and badly constructed "built-up" guns. The "built-up" gun has, however, two essential advantages: *First,* forged steel is much stronger and much more nearly homogeneous than cast-steel; and; *second,* the proper adjustment of shrinkages utilizes the elastic

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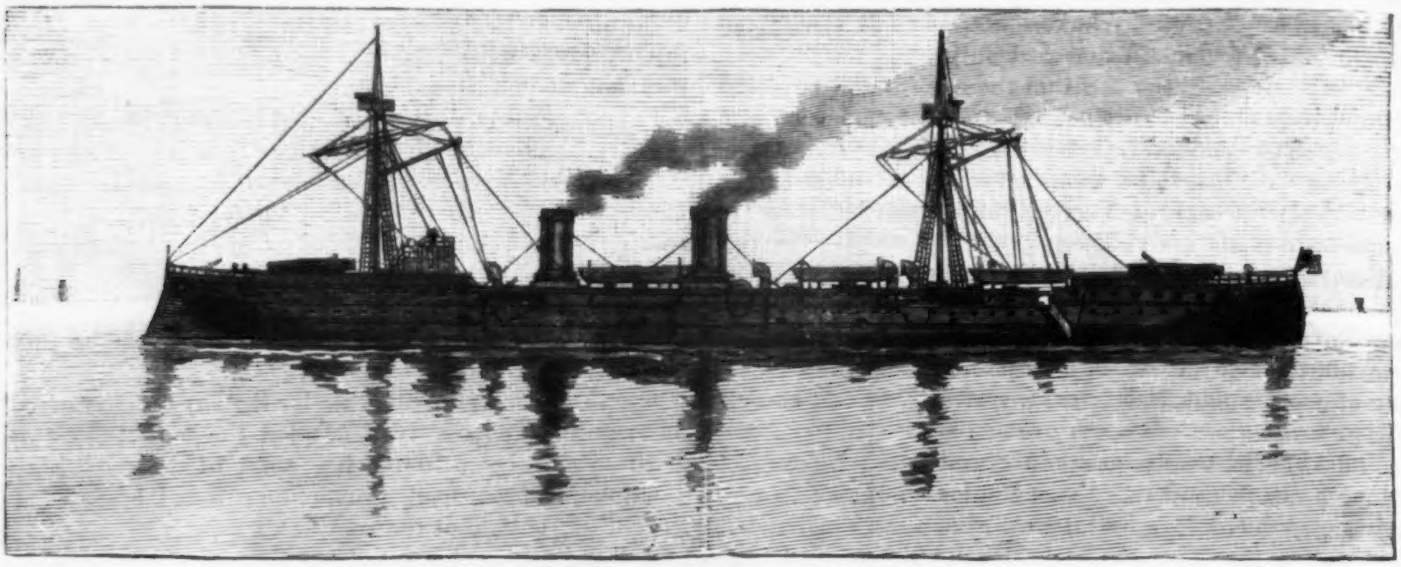


THE U. S. STEEL CRUISER "BALTIMORE."

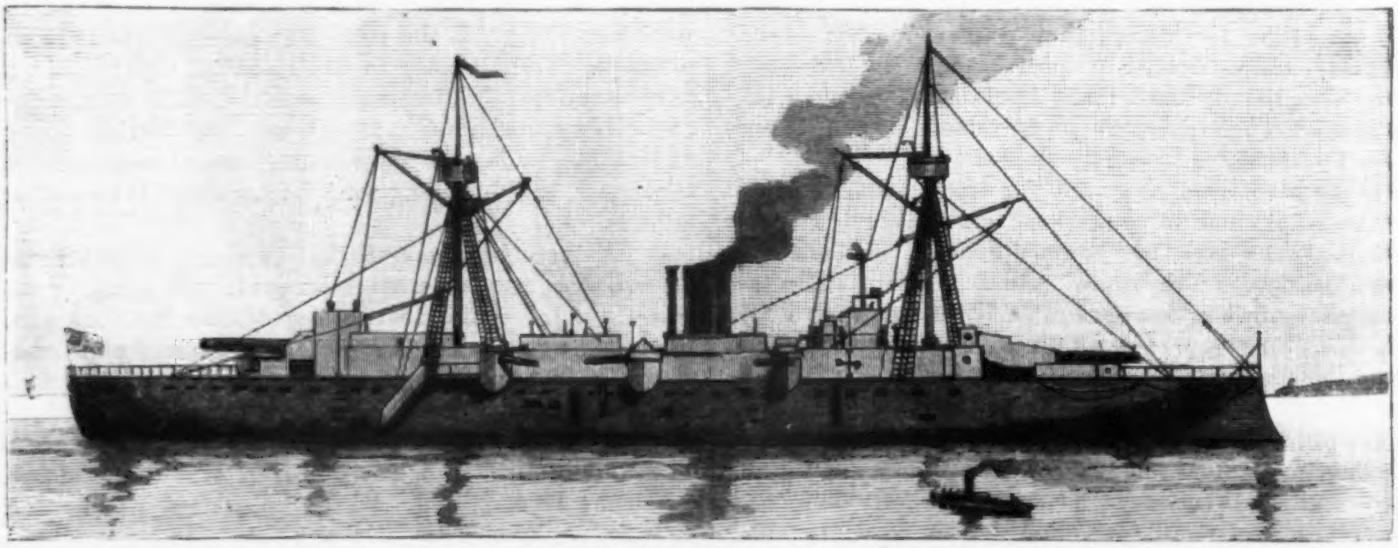
strength of the entire gun; a requirement which never has, and probably never can be, met in constructing guns in one solid mass.

The success which has been achieved in the manufacture of steel guns of enormous size and high power must be regarded as the leading fact in the wonderful advances which have been made during the last twenty-five years in the arts of war. Other inventions in land defenses and in naval architecture may properly be regarded as adjustments of the line of adaptations to the increased power of the gun.

The fact that the power of the gun had been so increased as greatly to exceed the resistance of forts led to many inventions in armored forts; among which the Gruson chilled cast-iron turret, and the Mougin steel turret, both of the turtle-back or umbrella form, appear at the present time to be the most approved. One of tho problems which now agitates the minds of military engineers is, whether it is better to employ armored turrets, or to conceal guns in pits. In the latter case, elevating machinery would be employed to raise the guns when about to be fired. and, immediately after firing, to lower them to a level at which they could be loaded, without exposing either gun or gunners.

The relative efficiency of armored and unarmored ships is also a mooted question. The armor of a ship must be at least twenty-five inches thick in order to afford adequate protection. This involves enormous expense, a very large addition to the weight of the vessel, and greatly increases her draught, whereby the number of harbors which she can enter, or approach near enough for attack, is greatly decreased. Unarmored ships, or cruisers, are superior to armored ships in their general sea-going qualities. The advantage of greater speed enables the cruiser more quickly to inflict injury upon an enemy. Celerity is still, as in the days of the Roman Empire, one of the highest conditions to success in war. Inadequate armor is rather worse than no armor, just as an old-fashioned stone fort is now worse than no fort. The theory of the unarmored ship is to protect the gunners against rifle-balls and the shot of machine-guns of the Gatling type, but not against the shot of cannon. In other words, guns and gunners are left to the chances of the conflict. The practical question is, whether the protective turret upon a ship is worth its cost, and the expenses and disabilities attending its transportation?

For engaging forts, armored ships are, of course, greatly superior to unarmored ships, especially in view of the fact that much greater accuracy of aim is attainable with guns on the land than with guns afloat. Some of the larger armored ships of the world, notably those built for the Italian Government, and designed especially for seacoast defense, have high speed and good seagoing qualities. Naval vessels of the present day may be divided into three classes, viz., unarmored seagoing ships or cruisers, armored seagoing ships, and floating batteries, *i.e.*, also having their guns protected by impenetrable armor. These last would have small propelling



THE U. S. GUNBOAT "CHARLESTON."

power, and be employed exclusively for harbor defense. Such vessels would be, in effect, floating forts. It will probably require one or more actual engagements between vessels of the three classes here mentioned in order to determine their relative efficiency in actual warfare.

Torpedo-boats and torpedo-cruisers range in size from 25 tons to 1,000 tons. The smaller are limited to harbor defense, while the latter are capable of crossing any seas, and are, therefore, available for offensive warfare. Vessels of the class from 100 to 150 feet in length attain a speed of 23 knots — nearly 27 statute miles per hour. They carry Whitehead torpedoes—of the class known as "fish-torpedoes," which are launched, and by their own propelling mechanism move in a straight line from 400 to 600 yards, and carry 60 to 80 pounds of gun-cotton or dynamite.

The larger torpedo-vessels not only carry "fish-torpedoes," but also a large number of machine-guns. Their principal duty is to attack the torpedo-vessels of the enemy. They are sometimes called "Torpedo-catchers."

Modern seacoast defenses now consist of:

First. War-ships for both offensive and defensive operations.

Second. Torpedo-vessels, *i. e.*, vessels carrying torpedoes to be discharged at an enemy's vessel.

Third. Channel obstructions of all sorts, including torpedoes and submarine mines.

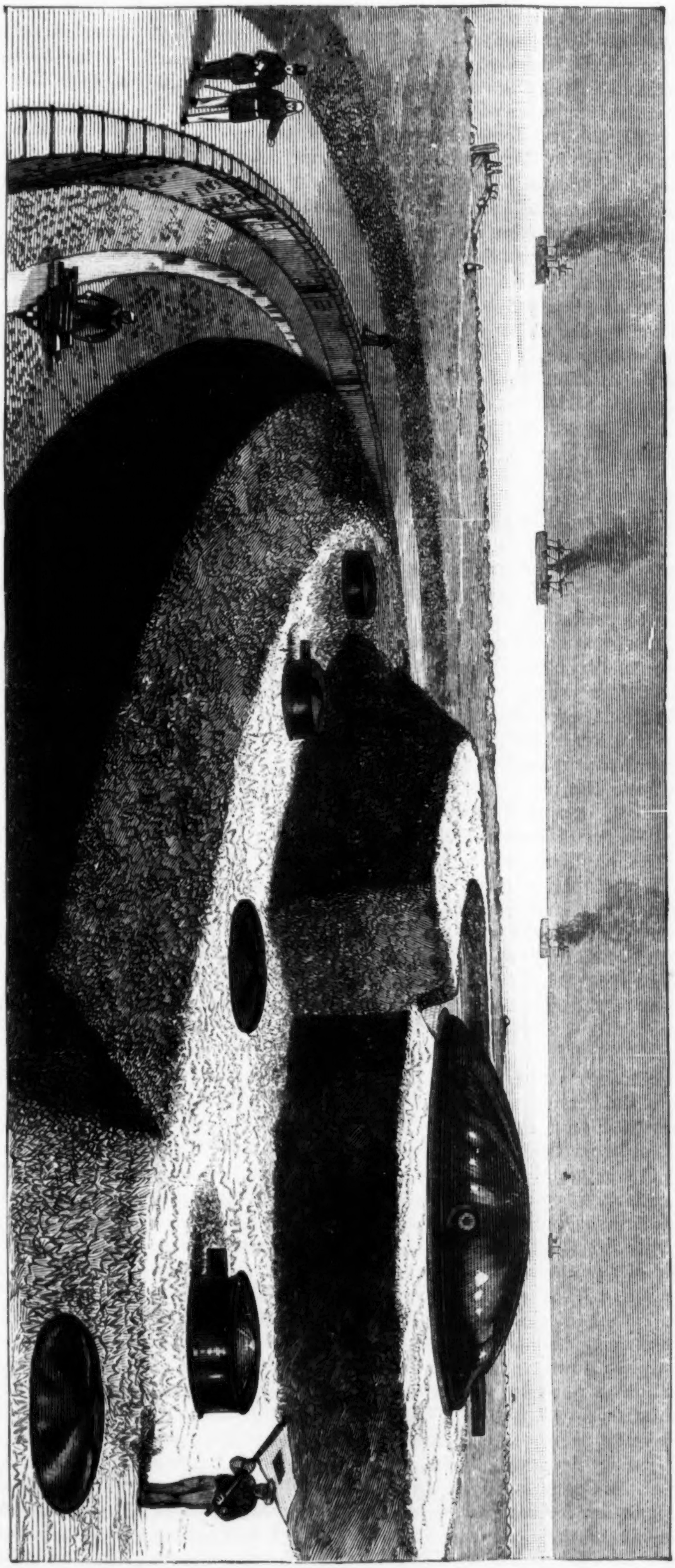
Fourth. Turrets and forts armed with guns in embrasure and earth batteries with guns *en barbette.*

Fifth. Rifled mortars in large numbers capable of dropping a shower of shot and shell upon the decks of war-ships.

Submarine mines are now regarded as merely auxiliary to ships and forts, without which they can be "countermined" by an enemy and destroyed.

It is probable, also, that in case of attack, other means of obstructing the progress of an enemy would be improvised or previously provided, having special adaptation to particular ports.

No single line of works is adequate to the exigencies of the modern instrumentalities of warfare. As hereinafter shown, in speaking of the defenses of the Harbor of New York, reliance can only be placed upon the adoption of all the arms of defense hereinbefore described, and in preparing the approaches to our seaport cities as a fighting-ground which, from one end to the other, shall bristle with dangers to an invading foe.



THE TURTLE-BACK TURRET AS APPLIED TO FORTIFICATIONS.

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The magnitude of the prize which our great seaports present to a foreign nation belligerently inclined is enormous. It is estimated that the total value of the destructible property in our twelve largest seaports is almost $5,000,000,000, or nearly twice the amount of our national debt at the close of the late war. It is probable that the total value of destructible property in New York city, Brooklyn, Jersey City and other towns in New Jersey, and in Connecticut and on Long Island, which might be protected by defensive works at the Sandy Hook entrance to New York Harbor, and by works at the eastern and western entrance to Long Island Sound, is not far from three thousand million dollars.

Mr. John D. Jones, President of the Atlantic Mutual Insurance Company of New York, has said in a recent letter to the writer of this article: "It is useless to attempt to analyze the probable class-liability for loss by destruction of New York city, in the event of its capture. Such a calamity would probably bankrupt all underwriting organizations, as well as most of the citizens."

The single condition of danger does not, however, express the pressing necessity which now exists for adequate seacoast defenses. The realization of that danger holds us in bondage, through fear, in all our foreign relationships. It rebukes our *amour propre* as a nation, and tends to that sense of degradation which is deadening to patriotism.

The great obstacle to be overcome is the apathy of our people, especially of our seaport cities, although the most deeply concerned in coast defenses. A year ago the Hon. Samuel J. Tilden addressed an earnest letter to the Speaker of the House of Representatives in favor of liberal appropriations for seacoast defenses; and again, in June last, in a letter to Senator Hawley of Connecticut, expressed his deep regret at the inaction of the House of Representatives.

The popular idea that important measures of public policy, involving the expenditure of large amounts of money, can be safely initiated and carried into effect in Congress without the prompting, and, I may say, the demand, of an informed and quickened public sentiment, is, as a rule, fallacious. If the rule were otherwise, democracy might in time give place to oligarchy. Adequate seacoast and naval defenses will probably cost somewhat over $200,000,000. By its very magnitude such expenditure trenches upon cherished schemes of public policy. Into the harmony of our well-adjusted financial affairs it casts a disturbing element. It is too much to expect of the ordinary Congressman—nay, it is too much to expect of the extraordinary Congressman—that he will, of his own motion, undertake the advocacy of enormous appropriations, when such advocacy would assuredly expose him to the attacks of his enemies and rivals, and perhaps also of a portion of the public Press, moved by good intention, no doubt, but not advisedly. When the popular branch of Congress, in July last, refused $6,000,000 for strictly defensive works, what can we expect to accomplish toward heroic measures of seacoast defense without a powerful public sentiment behind our Representatives in Congress? With such reinforcement our weakest "Member" will have neither enemy, rival, nor unfriendly newspaper to fear. It is quite absurd for men to abuse Congress for not providing the necessary appropriation for seacoast defense and yet refuse to lend the aid of their personal influence toward authorizing their Representatives in Congress to work and vote for the necessary appropriation. These views are the result of a somewhat careful observation of the course of political affairs as an officer of the Government at Washington.

At the present time New York city is absolutely defenseless, as are also Brooklyn, Jersey City, Newark, and all the towns on the Hudson River below West Point, and on Newark Bay and Raritan Bay. Fort Hamilton, on the east side of the Narrows, and Fort Wadsworth, on the western side, which look so grand and formidable, would constitute no obstacle to the passage even of the second and third rate armored ships of foreign nations right into our harbor. Such ships could safely run up within close fighting distance of these forts, and a few blows from the steel projectiles of their steel guns would cause the masonry of the forts to come tumbling down upon the heads of our gunners. Then the enemy could pass directly into our harbor, and hold New York, Brooklyn, Jersey City and Newark subject to ransom, with absolute power to destroy them in case of refusal to comply with the demand. We have not to-day a ship nor a fort which could stand before any one of about seventy armored ships belonging to other nations.

The state of the case, regarding the Port of New York, may be the better appreciated by stating that it would require, at least, six years to construct the necessary land defenses alone; whereas New York is only two days steaming from Halifax, two days steaming from the Bermudas, three-and-a-half days steaming from Nassau, and four days steaming from Havana.

I shall not here attempt anything in the nature of a dissertation upon the detail of military works necessary in order to prevent the armored ships of an enemy from approaching within range of the City of New York, but shall merely attempt to describe the conditions which approximately determine the proper location of the necessary defensive works. The maximum range of modern high-powered guns on shipboard may be stated generally at from seven to nine miles. It is, however, believed that a range of ten miles can, under peculiar circumstances, be attained with the guns of certain ships now belonging to foreign nations. This great range and power of guns of large calibre involves the necessity of placing forts at least six or seven miles from a city in order to prevent it being shelled by ships which in a close contest might engage the forts. Besides, for reasons which are perhaps hereinafter made clear, we should not trust to any single line of defense, but provide two such lines, with an intermediate fighting-ground of our own choosing.

The geographical position and topographical features of the Narrows constitute that a most admirable location for forts; but Fort Hamilton is only 6¼ miles from Castle Garden, and only half that distance from the outskirts of Brooklyn. Evidently, therefore, the absolute security of the city suggests the erection of defensive works on Sandy Hook, 16 miles away from the city. At this point the centre line of the main ship-channel is only about one mile from the possible location of armored forts upon that low, sandy peninsula. Batteries of rifled mortars which could drop showers of steel projectiles, loaded with high explosives, upon the decks of an attacking fleet long before it had engaged the forts at the closest possible range, might also be planted at Sandy Hook.

There is a deep-water "pocket" off Coney Island, where it is said an enemy's ship could lie and shell Brooklyn and the southern portions of New York city. It is believed, however, that that position can be rendered entirely untenable to attacking vessels by means of mortars and floating batteries.

The exploits of Farragut at the forts supposed to command the Mississippi River below New Orleans, and at Mobile Bay, and of Porter at Vicksburg, prove that land defenses alone are not sufficient to prevent war-vessels, propelled by steam, from passing forts. One of the essential conditions to the success of such movements is, however, that the attacking vessels shall be able to pass on into deep and capacious waters beyond the range of guns in the forts. This condition was supplied in both the instances just alluded to in which Farragut achieved immortal fame, also at Vicksburg. Such favorable condition to the passage of land defenses exists at New York with respect to land defenses at Sandy Hook and at the Narrows. An enemy's ship could pass on and lie securely in the Hudson River and in the East River, outside the range of guns employed in the defense of the city, and in such position be able to enter into negotiations for ransom which would at once constitute a national disaster and a national disgrace. These facts now render it axiomatic in military science that the defense of any city must embrace the various instrumentalities of naval warfare. The armored ship, the floating battery, the ram and the torpedo-vessel are, therefore, conceded to be essential features of a related system of defense.

Too much reliance has been placed upon torpedoes and submarine mines as instruments of defensive warfare. Terrible as is the work of these engines of war when effective, their practical use is subject to important conditions. First of all, they are practically useless when unprotected by forts, or mortars, or ships; for the ingenuity which has devised them has also devised the means of removing and destroying them. Then again, they are not available in rough water, and they are an uncertain arm of defense in very deep water.

Besides torpedoes, other and efficient means of obstructing the channel would undoubtedly be devised in case of war, so that the progress of an enemy could be arrested at points where the united fire of armored forts and mortars and floating batteries and ships could be concentrated upon him, and where submarine mines and torpedo-vessels could exert their proper functions. These various instrumentalities of warfare now constitute the essential and related parts of a perfect system of defense. It appears to be some such scheme of defense as this which General Newton had in mind when he asserted, in his official capacity as Chief of Engineers, that "the engineer has solved with mathematical certainty the problem of closing harbors and rivers against hostile ships, so that the sole question in each particular case would be whether the importance of the place would justify the cost."

In a word, the modern instrumentalities of naval warfare available in attack upon a seaport have rendered it necessary to adopt a complex system of harbor defense, the four general features of which are: (*a*) Land defenses, embracing forts, mortars, etc.; (*b*) a prepared fighting-ground, wherever practicable, between exterior and interior lines of land defenses; (*c*) the various instrumentalities of submarine warfare; (*d*) a naval force, embracing armored and unarmored ships, floating batteries and torpedo-vessels.

The naval arm must, in all cases, occupy the advance. It should, in all cases of attack, be prepared to meet and harass the enemy before his ships had engaged the land defenses, and, if possible, demoralize him and break up his plan of action.

Imagine for a moment the attempt of any foreign fleet to enter New York Harbor with a naval force of our own offering the enemy stubborn resistance, while retiring before him until he had come fairly within the range of forts and mortars on Sandy Hook and Coney Island, and at the Narrows, and, where his progress would be beset by torpedo-boats, and floating batteries and war-ships and those hidden dangers, torpedoes and submarine mines—which Farragut described as the most demoralizing of all the enginery of warfare. Such progress, like Tennyson's "Charge of the Light Brigade," w uld be—

> "Into the jaws of Death,
> Into the mouth of Hell."

I pass next to the consideration of the defense of the passage to the City of New York formed by the East River and Long Island Sound. It is a well-known fact that vessels can approach the city by this passage with a greater draught of water than by the Sandy Hook entrance. The last time the steamer *Great Eastern* visited this country on a commercial errand she anchored in Flushing Bay, and there took a load which is said to have put her down to the 32-foot mark, and with this load she safely passed to sea. The defenses of New York by this passage are now located at Throgg's Neck and Willett's Point, just opposite. This is regarded as the western limit of Long Island Sound, and is distant from New York city only eight miles. General Newton has declared that these works would present no formidable barrier to the passage of modern armored ships to a position above Hell Gate, from which both New York and Brooklyn could be shelled. But strategic conditions of the highest importance characterize this eastern approach to the City of New York, and determine the proper location of its defenses. In a recent magazine article, Rear-admiral Simpson, of the United States Navy, speaks of Long Island Sound as "the Mediterranean of the Western Hemisphere, ready to welcome an enemy to a hospitable anchorage, where he can establish his depots, and from which he can sally forth for the destruction of our coast trade, and to lay cities under contribution." Then again, connected with Long Island Sound at its eastern end, is Gardiner's Bay, described in the recent Report on Fortifications as "a great harbor," and "a possible base of hostile operations," which would afford an enemy "a most desirable site for the collection of his stores and war *matériel*, and enable him to establish a naval port which would threaten the maritime resources of the entire Atlantic coast." I am informed by the Superintendent of the United States Coast Survey that Gardiner's Bay has an area of about sixty-three square miles, that of Hampton Roads being only about forty-six square miles. He also states that in ease of access and security from the violence of storms, Gardiner's Bay is fully equal to Hampton Roads. In strategic value it is, on account of its nearness to populous and wealthy cities, of much greater importance than Hampton Roads. The report of the Board on Fortifications clearly states that "The Race," the ship-channel at the eastern end of Long Island Sound, only about four miles wide, with Valiant Rock midway in the passage, can be easily defended, and that the passage into Gardiner's Bay, only three miles wide, is also easily defensible. The importance of defending Gardiner's Bay has been suggested in various reports of engineer officers of the Army during the last sixty years. It was recommended in 1826, 1836, 1840 and 1851, by General Totten, Chief of Engineers—*clarum et venerabile nomen.* Gardiner's Bay was the favorite rendezvous and harbor of refuge of the enemy's fleet, both in the War of the Revolution and the "War of 1812."

The original location of the defensive works of the City of New York at Throgg's Neck was conformed to

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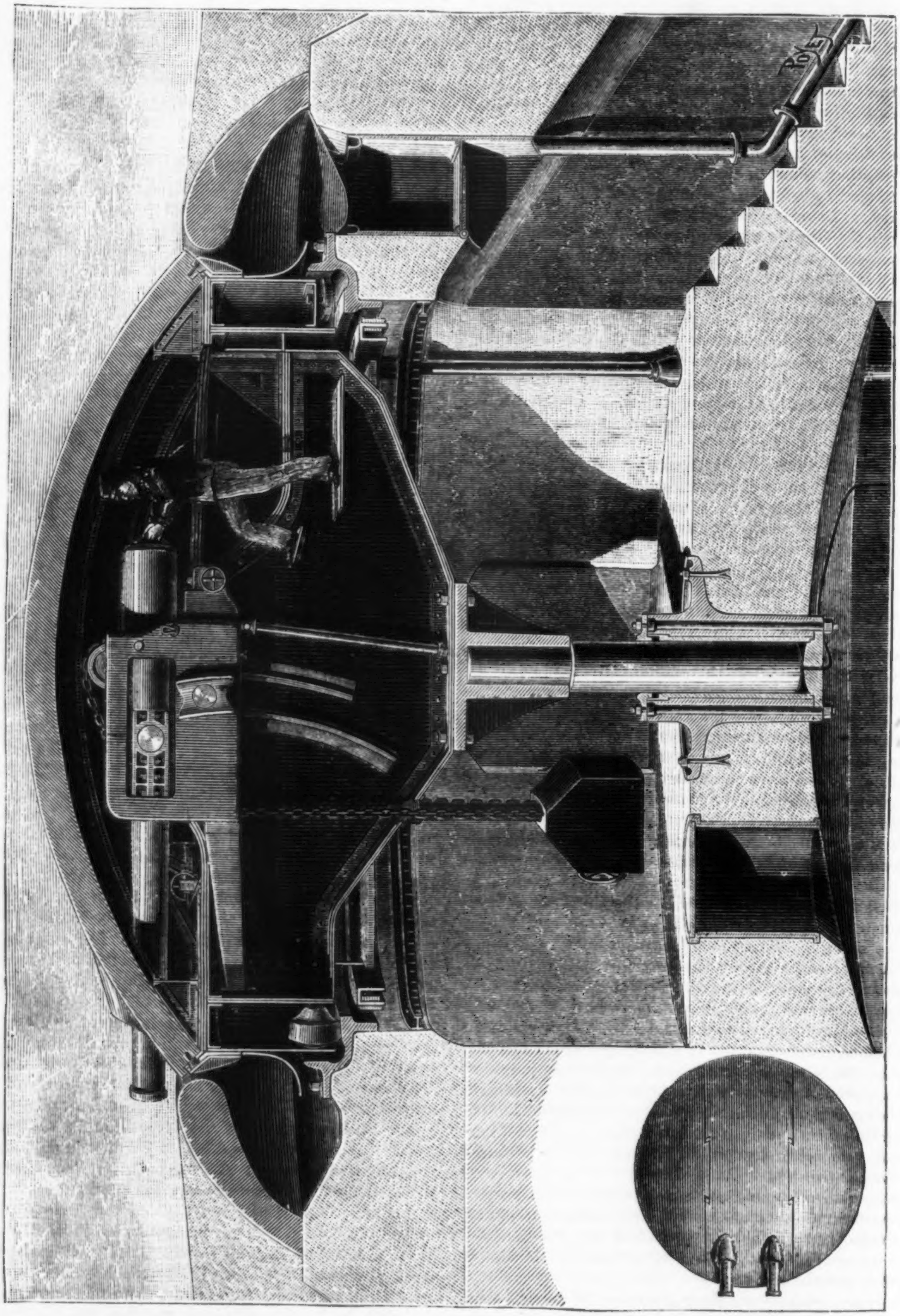
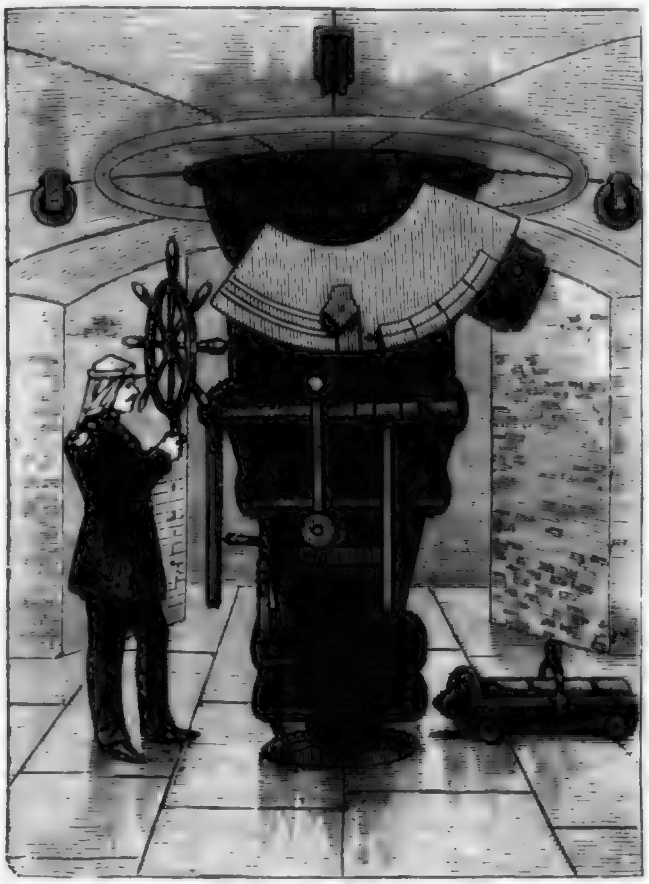


INTERIOR OF A MOUGIN TURRET.



INTERIOR OF A MOUGIN STEEL TURRET.

conditions imposed by the stone fort, the wooden sailing war-ship, and the old-fashioned cast-iron gun; but the steel gun, the armored fort and the armored ship now clearly point to the eastern end of Long Island Sound as the proper location of an outer line of land defenses.

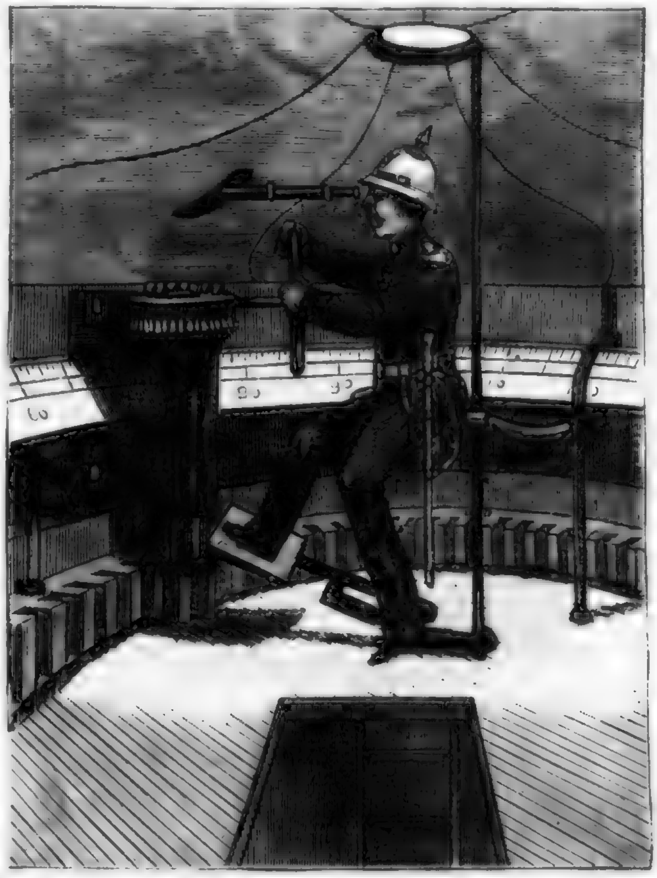
In order to illustrate the entire feasibility of defending Long Island Sound at its eastern end, and of preventing an enemy from gaining access to Gardiner's Bay, a map is given on page 271. Around certain points at which armored forts may be erected circles are swept, with the common radius of seven miles, which is less than the maximum range of modern steel guns of high power. It will be seen from the map that these circles completely cover the available passages into Long Island Sound, and that they also cover Gardiner's Bay, and every possible point of refuge for ships at the east end of Long Island in time of storms.

The land defenses at the points just mentioned, with their co-operative naval means of defense, which could here be deployed with great facility and effectiveness, would also subserve very important purposes besides the defense of New York city and Brooklyn—viz., the protection of the entire shore of Connecticut, with its rich and thriving manufacturing and commercial towns and cities, and the entire north shore of Long Island, along which there is a large and rapidly growing population, with thriving towns and villages, and at the east end of the Island the important towns of Shelter Island, Southold, Riverhead, Southampton and East Hampton. The important strategic value of Long Island Sound and of Gardiner's Bay with respect to our entire Atlantic seaboard, and the destructible property in Connecticut and on Long Island—estimated in value at $300,000,000—which would be protected by defenses at the east end of Long Island Sound and at the entrance to Gardiner's Bay, emphasize the importance of the demand that New York city shall look to those points as marking her outer line of defense against naval attack by the East River and Sound approach. If New York should refuse to lend the aid of her voice and influence in favor of defensive works at these outer points, such refusal would not only indicate a lack of patriotic feeling in the general work of seacoast defense, and blindness to the present conditions of her own safety, but it would also show an ungenerous spirit toward Connecticut and unkindness toward Long Island, a portion of the Empire State.

To recapitulate, the foregoing question, "How shall New York city be Protected against Naval Attack?" is here answered as follows:

First, by a line of outer works at Sandy Hook and Coney Island, and an inner line at the Narrows; and, second, by an outer line of works at the eastern end of Long Island Sound, and an inner line at Throgg's Neck and Willett's Point; in each case the land defenses being supplemented by the most advanced forms of naval instrumentalities of defense, with the aid of torpedoes and submarine mines where practicable. By this system of defense New York Bay would become our own selected and prepared fighting-ground, from the bar off Sandy Hook to the Narrows, and Long Island Sound would also become our own prepared fighting-ground from its eastern to its western end. This appears to constitute an adequate conception of a system of defense commensurate in magnitude and efficiency with the enormous interests at stake, and in the line of adaptations with the instrumentalities of modern warfare.

How Shall the Necessary Appropriations for Seacoast Defenses be Secured? It is idle to suppose that adequate seacoast defenses can be provided for our extended seacoast except at great cost. The Board on Fortifications have estimated the cost of such works at twenty-seven of our principal ports, including lake ports, at $126,377,800. The amount required for armored ships, cruisers, floating batteries and torpedo-vessels would probably swell this amount to fully $200,000,000. But



INTERIOR OF THE COMMANDANT'S TURRET.

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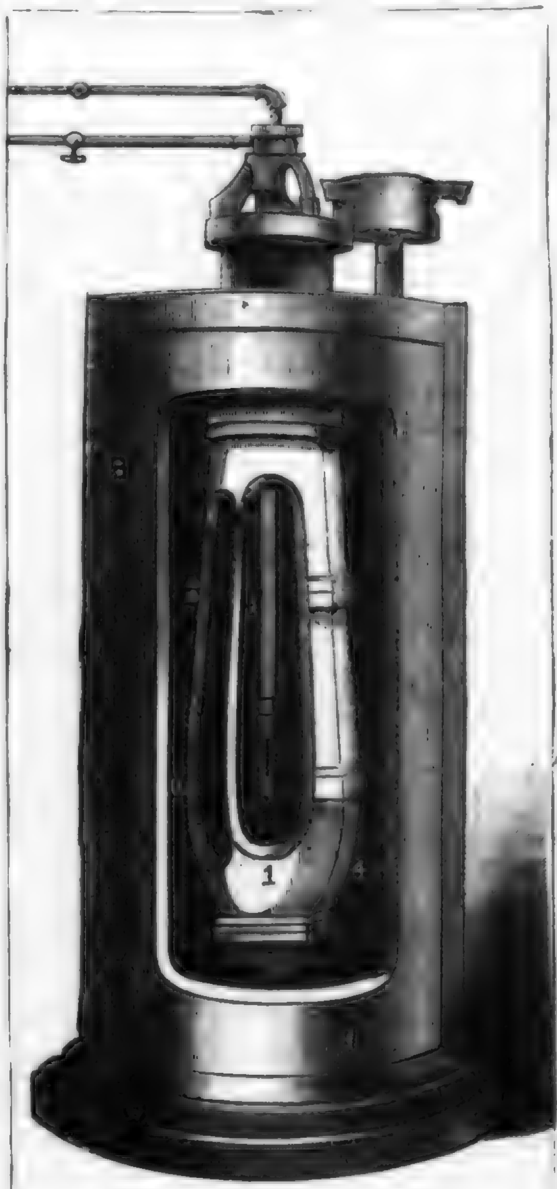
let it be remembered, in this connection, that the several maritime nations of Europe have already expended for modern war-ships and their armaments over $394,000,000. It is also consoling to the economist to note the fact that if the total expenditure for defense, including the rehabilitation of the navy, should be distributed over ten years, the annual expenditure — about $20,000,000— would constitute only about nineteen per cent. of our annual average surplus during the last five years. Neverthless it is a practical fact in the conduct of our governmental affairs, which must be recognized by every intelligent citizen, that even so large an expenditure as that above-mentioned cannot be made without the prompting and sanction of an informed and quickened public sentiment. The duty of citizens whose attention is turned to the importance of this subject appears to be, first, to create such a sentiment. Certain commercial bodies of the City of New York, a few weeks ago, entered energetically upon this work, and it is hoped that the original investigations which they have instituted will soon be complete, in order that the influence of their utterances may have its proper effect upon Congress during its present short session. A somewhat studious attention to the merits of the question is, of course, needed, in order to discriminate properly between matters which in general terms formulate the local needs of particular seaports, and are therefore immediate objects of public concernment, and matters of administration which must, under our system of government, be left to the determination of Congress and the discretion of the executive branch of the Government. With respect to the latter, all that the people can do is to hold their public servants to the full measure of their official responsibilities.



MODEL OF CASTING OF HEAVY GUNS IN ORDNANCE DEPARTMENT.

It appears desirable, also, that at this time the local Governments of the several seaports shall urge upon Congress the importance of seacoast defenses. The exigencies of our nationality and the provisions of our Constitution and laws forbid that such work shall be done by any other than the National Government.

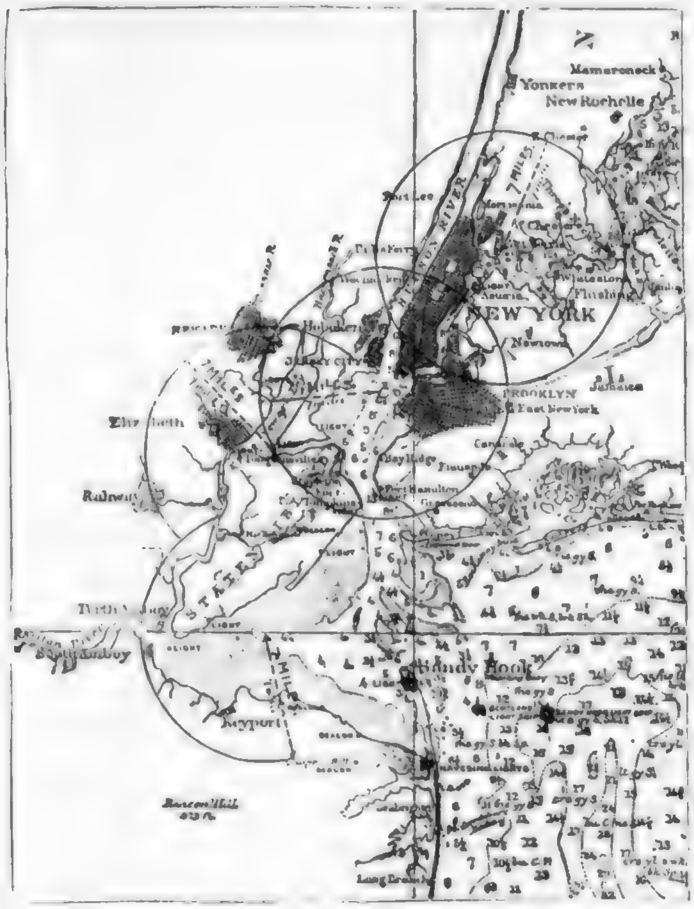
One of the most important features of the scheme of defense hereinbefore described is that it subserves the interests of three States with respect to seacoast defenses —*viz.*, New York, New Jersey and Connecticut. Adequate defense at the east end of Long Island Sound will protect the entire shores of Connecticut, and defensive works at Sandy Hook and at the Narrows, in connection with naval means of defense, would be protective of Jersey City, Newark, Elizabeth, Elizabethport, Perth Amboy and South Amboy, in New Jersey. This latter point is clearly illustrated upon the map, by means of circles with radii of seven miles, swept from a point in Kill Van Kull and from a point in Raritan Bay, where an enemy's ships could now take position in spite of all our present means of defense.

The defenses at the east end of Long Island Sound, especially the naval branch of it, would bear an important relation to the defenses of Narragansett Bay, Buzzard's Bay and the entire Vineyard Sound, and thus subserve important purposes in the seacoast defense of Rhode Island and Massachusetts.

Progress would be made toward legislation in regard to the general subject of seacoast defenses if each seaboard State of the Union would, at least in general terms, formulate its particular need regarding seacoast defense, and urge its Senators and members of Congress to use their influence toward securing the desired protection against the naval force of an enemy. Such action would naturally provoke a full and thorough discussion of the whole subject of seacoast defenses in the public Press and in Congress, and eventually lead to a system of defense which would prevent any serious disaster, and enable the Government to assume without jeopardy that independent attitude in our foreign relationships which is the becoming and proper expression of a firm national character.

It is of interest, in connection with the facts which determine the present needs of the country in regard to seacoast defenses, to recur to historic facts illustrative of the advances which have been made in the arts of war, with special reference to New York city and its vicinity. Such facts epitomize and illustrate the progress made in the science of war.

The battle of Long Island, which occurred August 27th, 1776—only six weeks after the signing of the Declaration of Independence—involved the fall of New York city and the capture of Long Island. The disparity in the effectiveness of guns on the land and of guns afloat was much greater then than now. Accordingly the British made no attempt with their formidable fleet to cope even with the improvised forts which Washington had erected on Governor's Island, at the south end of Broadway, at Coenties Slip, and at the foot of Cherry Street. The uncertainty of the wind, the impossibility of holding sailing-vessels in position, or of



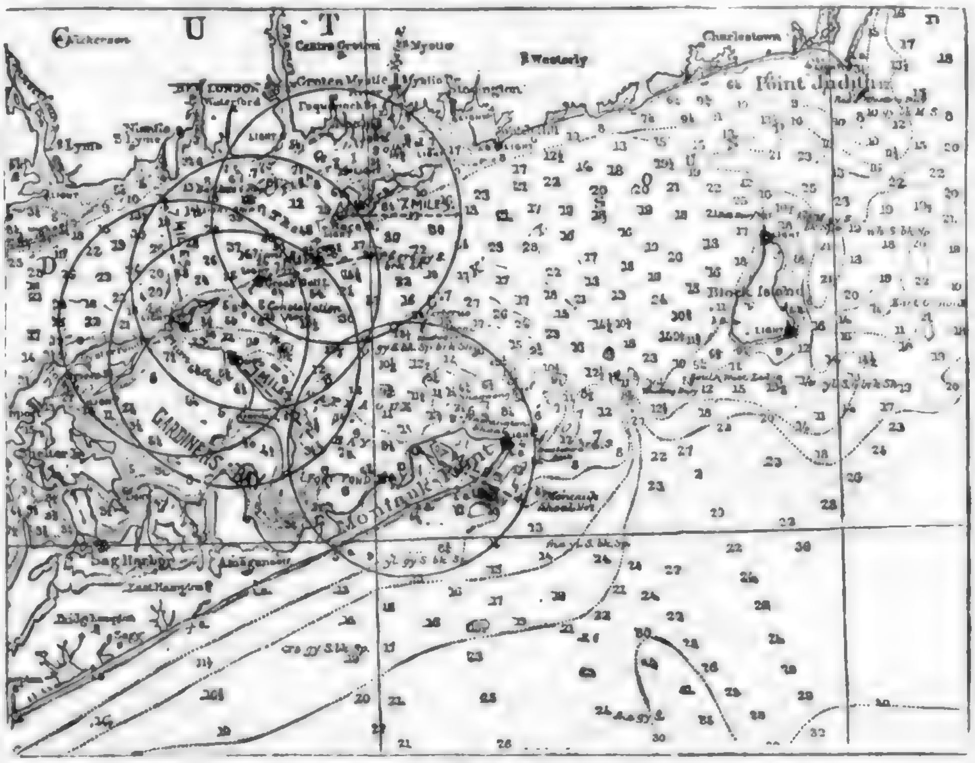
THE BAY OF NEW YORK.

manœuvring them to advantage in any attack upon forts, and the uncertainty of the aim of their guns, rendered a gun on land worth twenty guns on water. Wooden walls, besides, were no match for stone walls or for earthworks. The short range of the guns of those days and their comparatively small power, confined the operations of war-ships chiefly to naval engagements—*i.e.*, ships against ships—and it was the intrepid soul of Lord Nelson which discerned the fact that the only way fully to utilize the powers of the wooden sailing war-ship of the olden time was "to lay the enemy close alongside."

During the "War of 1812" the same infirmities of the wooden sailing ship served to protect our cities from naval attacks. Besides the forts existing at that day, the enemy also stood in mortal dread of torpedoes and submarine mines, the invention of that wonderful American genius, Robert Fulton. Prior to the war he had, in an experimental way, blown a Danish brig to fragments near Deal, England, and the experiment had been repeated in New York Bay. Citizens also improvised various means of blowing up the enemy's ships when at anchor in our harbors, some of which were successful. One notable instance is mentioned of a Long Island fisherman by the name of Penny, who ventured forth in a whaleboat with a barrel of gunpowder supplied with clockwork for firing it by means of a line after it had been affixed to the frigate *Ramillies*, the flagship of Commodore Hardy. Penny was, however, captured with his instrument of destruction. But he had the satisfaction of knowing that his attempt kept the *Ramillies* constantly in motion, and his patriotic soul was gladdened by hearing the ship's bottom swept with a chain every two hours, day and night. Commodore Hardy denounced torpedoes as an inhuman and uncivilized method of warfare, and sent a letter to Justice Terry, of Southold, desiring him to warn the inhabitants along the coast that if they allowed a torpedo-boat to remain another day among them he would "order every house near the shore to be burned."

Fulton also constructed, in the year 1814, an ironclad steam war-vessel, with a double hull, the paddlewheel being placed between the two hulls. This ship was 145 feet in length. She made two trips to sea with her full armament of thirty 32-pounders, and two 100-pound columbiads, making 5½ miles an hour against wind and tide. It was not, however, until about the year 1840 that the Government began the work of building a navy propelled by steam upon the screw-propeller plan. The use of steam revolutionized naval warfare; it enabled war-vessels to engage forts and to pass them. It was not, however, until the opening of the late War of the Rebellion that armored ships were successfully introduced. Their highest development has been accomplished by the nations of Europe during the last twenty years, and it is only within the last six or eight years that the steel gun can be said to have passed beyond the stage of experiment and become a potential factor in the international relationships of the civilized world.

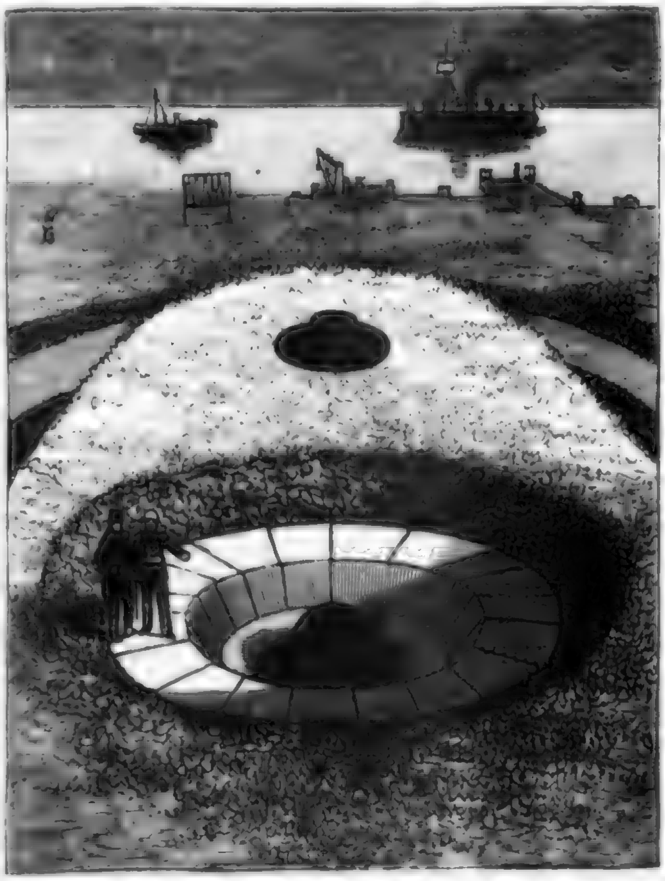
The capture of Long Island, in 1776, afforded the British army an invaluable source of supplies of food, and abundant safe harbors. Huntington Bay, on the Sound, afforded the enemy's ships a good and safe anchorage. In the centre of the adjacent village of Huntington a fort was built, the outlines of which are yet plainly visible. This fort was constructed by the British commander, one Benjamin Thompson, a Tory, who in Europe subsequently achieved fame and fortune and title as Count Rumford, in recognition of his wonderful discoveries as a scientist.



THE EAST END OF LONG ISLAND.

The capture of New York city by a hostile fleet to-day would as surely place Long Island under the domination of the enemy as it became subject to British authority in 1776. With one section of his fleet in New York Harbor and another in Gardiner's Bay, and Long Island Sound under the control of his ships, Long Island would be virtually under the dictation of a foreign flag. In such an event General Manager Heald of the Long Island Railroad would probably find it more discreet to obey the order of the commander of an enemy's fleet than that of President Corbin. The moral influence of the ease with which an enemy could destroy the principal towns and villages along the Sound would accomplish all this.

It is a matter of interest here to advert to the importance of providing adequate defenses for San Francisco, in view of the fact that its harbor occupies a commercial position with respect to our Pacific Coast, similar in relative importance to that of New York Harbor with respect to our Atlantic Seaboard.



THE SUNKEN MORTAR-PIT.

The need of adequate defenses for the Bay of San Francisco is apparent. It is stated in the recent report of the Board on Fortifications and Other Defenses that at the present time the bay can easily be entered by an enemy's fleet, and San Francisco, Oakland, Benicia, Vallejo and the Mare Island Navy Yard be destroyed or held for ransom. The peninsula of San Francisco is a veritable Gibraltar from a military point of view, and, besides, it occupies a position of inestimable importance commercially. But while the fortress at Gibraltar does not command the entrance to the Mediterranean, and the commercial value of the position is still an enigma, the "Golden Gate" can be perfectly commanded by steel guns and other appliances of war, and San Francisco is the natural *entrepôt* of a vast area west of the Rocky Mountain divide. The geographical characteristics and commercial importance of San Francisco Bay may, perhaps, be better appreciated by saying that it is the only great harbor and safe roadstead of the Pacific Coast from Cape Flattery to San Diego, a distance of 1,350 miles—equal to the distance from Eastport, Me., to Beaufort, S.C.—and that along this whole coast there extends a chain of mountains broken only by the Columbia River and San Francisco Bay. This orological feature of the continent forbids a coastwise trade such as we have on the Atlantic Seaboard. For this reason the great currents of internal commerce on the Pacific Slope must always move on interior lines—almost exclusively on railroads. These lines meet at San Francisco Bay, where nature has provided the only harbor for maritime commerce on the Pacific Coast, south of the mouth of the Columbia River. Relatively, San Francisco occupies a much more important position with respect to the commercial and industrial interests of the western side of the continent than does any one of our Atlantic seaports with respect to the eastern side. Vast commercial and industrial interests throughout the Pacific Slope would, therefore, suffer by the fall of San Francisco.

The value of destructible property in San Francisco alone is $181,000,000, and the value of all the towns and cities on San Francisco Bay fully $200,000,000.

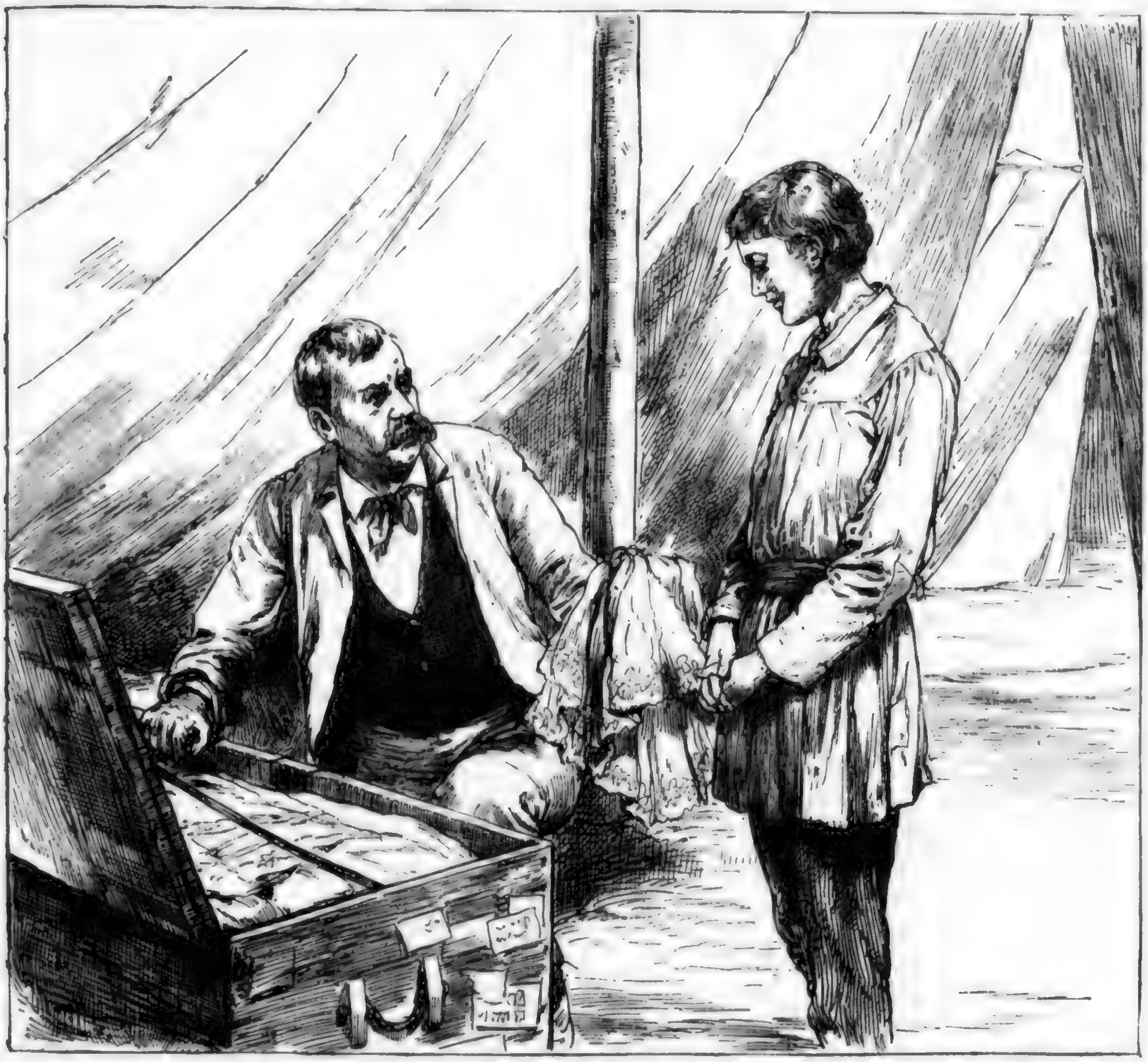
But the political interests involved in the defense of San Francisco and San Francisco Bay ought perhaps to be regarded as paramount even to the important property and commercial interests to which reference has just been made. While the War of the Rebellion was going on it was deemed a matter of sufficient importance, from a political as well as commercial point of view, to expedite the construction of the Union and Central Pacific Railroads by an enormous land grant and a loan of the national credit to the extent of $61,000,000. But how much more important to-day are both the political and the commercial considerations involved in the defense of San Francisco Bay.

The Board on Fortifications and Other Defenses, composed of military and civil experts, in their report rendered January 23d, 1886, estimate the cost of adequate defenses for San Francisco at $27,868,150, which includes $10,725,000 for "floating batteries" and their armament. These batteries are necessary as substitutes for forts in the case of San Francisco, for the reason that it is not possible to place guns in defensive position upon the land far enough from the city in order to prevent vessels from approaching it within shelling distance. When the cost of the necessary seacoast defenses for San Francisco is contrasted with the important commercial, industrial and political interests which would thereby be protected, delay in providing such works seems to indicate a lack of sensibility to the honor and dignity of the country, and blindness to an essential condition of its safety.

All that is needed is the necessary appropriations by Congress. Much rubbish of inconsequential objection to such appropriations has been brought forward. Apparently the necessary appropriations must await such an awakening of public sentiment upon the subject as shall bring party leaders to understand that such appropriations are regarded by the people of this country as a patriotic duty, and that they shall not be made the pretext for a dishonorable partisan attack.

I desire to acknowledge the aid courteously afforded me in the preparation of this article by officers of the Army and Navy while in Washington.

A STATISTICIAN says that there are 21,305,000 English-speaking Episcopalians in the world, 16,000,000 Methodists, 14,000,000 Roman Catholics, 10,650,000 Presbyterians, 8,195,000 Baptists and 5,750,000 Congregationalists.



A VERY PECULIAR BOY.—"GRIFF RAISED HIS HEAD. 'I WANT YOU TO TRY AND SEE IF ANY OF THESE THINGS WILL FIT YOU.' 'WHY, THEM'S WOMEN'S THINGS,' SAID THE BOY. 'JUST SO,' REPLIED GRIFF."

A VERY PECULIAR BOY.

By Ausburn Towner.

They had almost finished taking down the big tent, and he sat rolled up in a small compass with his back against the wheel of one of the great wagons. He was as quiet as one of the large rolls of canvas near at hand, nothing seeming alive about him but his eyes, and they were looking with a wistful, almost rapt, expression upon a man standing at a little distance away, who, with arms folded and hat pulled down over his eyes, showed in every line of his attitude dejection or moody abstraction.

Boy and man, the two were closely observed by several of the tent-men who were holding hard on a rope, awaiting the low-spoken order from the "boss" to "let her go."

"The 'old man' is thinking about his Liddy, I guess," said the foremost one, Jerry Roper, the "mouth man" of the whole gang.

The remark was overheard by the "old man." He unfolded his arms, lifted the brim of his hat so that the nearest torch shot its sallow yellow light into his eyes, brightening up a worried, unpleasant countenance.

"And sorry was the day for all of us," he said, "when My Lady, the Queen of the Arena, left us for good and all."

"Right you are!" exclaimed Jerry. "A man's wife is the best friend he can have in this world, and when she's gone, good-by about all that is worth living for."

The "old man" sighed and shook his head in sympathy with the remark.

He was an "old man," and "old Griff"—thus interchangeably called by his men—only in a figurative sense, for his age was but little past thirty years. A man ages fast in experience, conducting such a show as his, and traveling, as it was, through the rough mining districts. On the heavily displayed bills that were posted on the sides of tents and shanties, and around some of the larger trees, he was, besides, "the most renowned bare-back rider that the world has ever seen. He had been applauded by the crowned heads and nobility of the Old World, and was in this country for a brief season, as much to see the land and the people for himself, as to show the great American public what equestrianism was in all its gracefulness and beauty!"

He was, in reality, Alonzo Griffin, and the truth was,

XUM

further, that he was born not very far from the corner of Cherry and Catherine Streets. His first lessons in the ring were taken at Niblo's, and he knew as much about the old country as a chimpanzee knows of the higher mathematics.

Presently, half in soliloquy and half addressing the men near him, and sadly neglecting, after the manner of his kind, the "g" in the final "ng" of his words, he said:

"Somethin's got to be done; somethin's got to be done right off. I'd like to know what kind of a show that is, in these days, that has no woman in it. A pair o' tights and fluffy skirts that stand out for all ways, like an opened umbrella or the cap of a mushroom, is better to draw with hereabouts than a six-handed piebald team or an eddicated mule. Somethin's got to be done, and done right off."

Jerry Roper was ready for him, as usual:

"In our 'biz,'" remarked that philosopher, "women that are cards in the ring are not to be had for the askin', and you couldn't send East for one at this season. No more could you pick up one here and fit her for the public in time for any good. We h'ain't made money enough in the past week," he growled, in conclusion, "to buy hoss feed, let alone settling up the salary list."

This was something of an exaggeration, but fitted in well with "Old Griff's" moody condition, and he again pulled his hat over his eyes, shrugging his shoulders as he did so.

At that moment the order to "let her go" came, and the great canvas came down "on the run."

Something else came down "on the run."

The small object near the wagon-wheel had unrolled itself and was approaching the group in a very peculiar manner, one of the men exclaiming:

"Just look at that there boy again!"

It was, indeed, apparently a boy, although, in the shadows, a lively imagination could have made it appear to be anything. The order of moving was reversed, and he was coming in on his hands. His legs were bent over, and he had put his big slouch hat on his knees. He looked like a headless something with very short legs coming toward them. When he raised his face so that they could see it, and the light from one of the torches shone full upon it, it showed a pair of clear, dark eyes glistening with merriment. Coming close to Jerry, he reversed his position, and sitting down upon the ground, asked:

"How's that for a week in a circus?"

"Old Griff" was not so far away but that he, too, had seen the antics of the lad. Memories of his past connection with the sawdust ring were thick in his mind as he looked, and of an incident at the time that attracted the attention of the whole world. He gave no outward indication of what his thoughts were, however, except by a slow shake of his head, while he looked closely at the lad and repeated his expression, "Somethin's got to be done, and right away," adding, as though trying to see objections but unable to do so: "Why not? I'd like to know why not?"

Jerry Roper had had something of an idea, too, and he lounged, with it, toward the centre-pole.

"I say, Griff," he said. "I've got an idea."

"What about?"

"Why, this 'ere woman business."

"Let me have it."

"Do you remember a week ago yesterday, early in the morning, when we were just making 'Lazy Man's Gulch'?"

"Yes. Well?"

"Right at the end of the cañon we saw a man, a horse and a boy?"

"Yes. The man and horse were dead, and the boy not far from it. What of it?"

"Didn't you have the man decently buried, feed the boy and tell him to gather up his traps, stow them in some wagon, and come along with us until he could find something better?"

"Any one would a-done the same," grumbled "Old Griff." "But you're a long time comin' to that idea of yourn."

"Do you know who that man was?"

"No."

"Well, I've talked with the boy. He's took quite a fancy to me, and he says as how his father was a sort of a showman in the way of 'hand-work fakin'.' He was pretty old, and badly down at the heel. So, when his old horse gave out, he gave out, too, and they laid down there and died together."

"Old Griff" stopped Jerry abruptly, by touching him gently on the breast with his forefinger, and said, solemnly: "That's just what I was thinking about myself." And Jerry added, as though there had not been the least break in his remarks: "The boy is supple and graceful, learns easily, and in a week has picked up a good many of the tricks of the ring."

All this time Griff had never once taken his eyes off the slender lad who was still seated where he had dropped when he changed his wrong-side-up condition to one of a more nearly normal nature. Griff walked over toward him.

"How old are you?" he asked.

"Don't know," replied the lad. "About sixteen or seventeen, I guess."

"Did you ever ride a horse?" pursued Griff.

The boy's bright face lighted up, and he repeated slowly: "Did—I—ever—ride—a—horse?" Then he continued, "Well, you can just bet."

"Do you like horses?"

The lad's only reply was a partial whistle and the expression, "I should smile!"

These classical but somewhat inconsequential words seemed to carry conviction to Griff's mind.

"As soon as the tent is up to-morrow morning," said Griff, "you come to me wherever you can find me." Then he walked away again, repeating his words: "Somethin's got to be done, and done right away; and I'd like to know why not?"

"There's no need tellin' the boy any such thing as that," said Jerry to his companion. "You can bet your last dollar that wherever the "old one" is that boy won't be far away. He's been a shadder to Griff ever sense that mornin' we found him half-starved beside his dead father, folleyin' him around like a kitten does the old cat, and Griff's too tender-hearted to shoo him away. You ought to see him flat on his face under the band seats when Griff does his acts. He never stirs, only his eyes, and they're full of somethin' I can't make out."

Thirty miles away from there, by nine o'clock next morning, the tent was up, with all its flags flying, and the busy side-show people screaming their attractions to the early comers. Griff was in the ring, and the boy was with him. By the light of day the lad was seen to be a slender but sinewy youth, straight-limbed and erect, head nicely poised on his shoulders; a fresh, fair complexion and light hair, but with eyes so dark a brown that they seemed, in contrast with the flesh, to be dead black. On his upper lip there was just the faint trace of a mustache, so faint that, after all, it might be only a shadow on the face. Over a hickory shirt he wore an old blue blouse, fitting his form loosely, and brown trousers that must have been made originally for his father; and blouse, trousers, patched low shoes and ragged slouch hat, were all of ancient pedigree.

Griff looked the boy all over, and his eyes and face showed that his scrutiny had satisfied him. He had given some previous direction, for, as they stood there, one of the hostler's led into the ring a horse having on his back a well-worn "pad."

"There she is," the hostler said.

The lad looked up at him quickly.

"Do you think you could stand on that 'pad' while the horse walked around the ring?" Griff asked.

"Try me and see," was the reply.

"Well. Get on."

The lad sat down in the ring and pulled off his shoes, leaving his feet bare. Then he tossed his ragged hat toward the centre-pole, and with a short run and spring he was astride the horse.

"Lead him slowly around," said Griff to the hostler, and then, as his order was obeyed, he added: "Let's see what you can do." This latter to the lad.

There are some persons who are born with more than five senses, or an exaggeration of one of them. The value of the results obtained from their use establishes whether or not the person so born is a genius. One of these faculties is an intuitive perception of the centre of gravity or personal equilibrium. Some persons never have, and never can have, any notion of balancing themselves, while others, without any practice, will walk for miles on one rail of a railroad track, or successfully mount a bicycle for the first time, and never have trouble with it. This lad must have been one of this latter kind of beings, his natural notion of the centre of gravity being so exact and delicate that there was no more danger of his falling, so long as he could control his own motions, than that a ball will refuse to roll down hill if there is nothing in its way. It seeks, naturally, its own centre of gravity, as did he.

He was on his feet instantly, and his various movements were as free and unconstrained as though he had been upon a level floor.

"Let him go faster," he said to the hostler, and Griff nodded.

The horse, an old and safe hand at the business, with a touch sprang into one of those long, slow, regular lopes, whose rise and fall can be timed by the ticking of a clock. Still the lad kept his feet, and his lithe, graceful movements showed an unconsciousness of effort that took away all apprehension from those looking on.

"Look a-here, my boy," said Griff, after a time, "have you ever been there before?"

"Never," replied the lad.

"Well, that settles it then," said Griff.

The boy looked at him curiously, but nothing more was said.

Ike Simms, the newspaper-man ahead of the show, was recalled. He and Griff had a long conference one morning, and off he went again. For two weeks, every morning for an hour, and every afternoon for two hours, the lad was in the ring, with Griff looking on. No one knew exactly what it meant, and no one but Jerry Roper suspected.

One morning Griff called the lad into the dressing-tent, and they went to a great chest in the corner. Griff kneeled down and unlocked it. Lifting the cover, were displayed a quantity of dresses, brilliant-colored ribbons, gilt and spangles. Griff leaned over, and was silent for a few minutes. The lad standing by, thought he saw tears in his eyes and felt certain that he sighed.

"This hasn't been opened for more'n six months now, since she died," said Griff, half soliloquizing, as he touched, very gently, the soft fabrics that were exposed to view. "But somethin's got to be done," he added, as though bracing himself with the thought; "somethin's got to be done right off. Why not?"

The lad looked at him with curiosity.

Griff raised his head.

"I want you to try and see if any of these things will fit you," he said. "If they do, they do. If they don't, we'll have to make 'em fit you."

At this, Griff laid out four or five of the dresses nearest at hand upon the ground.

"Why, them's women's things," said the boy.

"Just so," replied Griff.

"But I can't wear women's things," objected the boy.

"You can't, eh? Why not?"

"I don't know how. I'd get all tangled up in the skirts."

Griff laughed.

"Not much danger of that," he said. "There ain't enough of 'em."

"Well, I can't wear 'em. I wouldn't know how to act."

Griff shut down the lid of the chest, and sat down upon it.

"Look here," he said. "You see our show. "It's a good one, so far as it goes, but it don't go far enough. It used to be perfect when she was with us. She could draw. She was as pretty and sweet as a rose, and she'd fill our tent three times a day. Our business has dropped off to a-most nothin'—that is, nothin' beyond expenses—and somethin's got to be done. I wouldn't let no other woman wear her clothes, but I'd let you, for I think you'll be a credit to 'em. We can fix you up so's no one could tell that you wasn't as pretty a girl as ever danced a sailor's hornpipe on a pad. Some red on your cheeks and lips, a little black on your eyebrows and eyelashes, and a nice blonde wig, and there you are. You can help us out, and make a nice stake for yourself, too."

The boy still stood with his eyes cast rather disdainfully upon the finery on the ground. His attitude, with his hands crossed in front of him, was that of decided unwillingness.

"Come, now," continued Griff, "where would you a-been except for me? I don't want to preach up my own deeds, but I helped you out of a pinch. Turn about, my boy, and help me out of a pinch."

The boy was evidently touched at this appeal, and by Griff's serious manner.

"If I do, I'll have to wear these things all of the time," objected the boy, touching the skirts disdainfully. "Then it's cheating, and if they ever find out the deal—phew!"—ending with a long-drawn whistle.

"They? Who?" asked Griff.

"Why, these wild men of the mines. They'd tear your tent all to pieces to find themselves sold."

"Never you mind about that," said Griff. "I'll take care of them, and you would not have to wear a dress exceptin' durin' your acts."

Well, give me the things, and I'll see how they look," said the boy, rather petulantly. He grasped a quantity in his hands, and moved toward an inner dressing-room.

"I don't know but it would be better to shave your upper lip," called Griff after him.

"Then I won't do it at all," returned the boy, coming

XUM

A FAIRYLAND OF SCIENCE.—FRENCH BROAD, FROM RICHMOND HILL. SEE PAGE 280.

back and flinging the garments upon the ground. He felt of his upper lip tenderly, but whether or not there was any return to the touch it would have required a rather active microscope to have revealed anything to the eye.

Griff laughed slightly. "No matter," he said. "Go along. I don't think a razor will ever need to touch your face, at least for ten years yet."

The boy again took up the garments and disappeared behind the flap of an inner dressing-room.

A week after that, as in the early morning the great "London Sensation," under Alonzo Griffin, drove into the neighborhood of a great mining camp, there were some new and very red and blue bills to be seen, announcing the first appearance in this country, and secured at an enormous outlay, of Annetta Belora, the Bavarian Equestrienne. All down the bills were frequent references to her, sometimes with great alliterative attractiveness as the "Bavarian Beauty," or the "Beautiful Bavarian," or, again, as being as Sparkling and Lively and Bewitching as the Beer of her native country.

As Jerry Roper said that evening: "He took those fellows right off their feet, and it's business again. I never saw this tent packed as it was this afternoon and evening, and Griff says he's already received seven offers of marriage and five chances at a share in a silver-mine that pans out eighty-two to the ton." Then Jerry very quietly chuckled as he thought of the very solid basis on which the salary list was suddenly placed.

Whether or not it was true that the lad had taken all the men of that comparatively womanless town off their feet, he had, at least, had a powerful effect on one young fellow. This one had drifted in with the throng in the afternoon and had been a rather listless spectator until the appearance of the "Bavarian." He was attracted at first, and then completely captivated. He returned in the evening, and in lieu of the bouquets and other flowers that are showered on favorites in the East, he flung at the lad, as he passed from the ring to the dressing-tent, a small bag of gold dust. "Annetta" picked it up, and gave a grateful glance at the donor that put the finishing touch upon his infatuation.

The young fellow, as powerful as Hercules, crushed his way through the throng at the conclusion of the entertainment and ran around to the dressing-tent. He pushed his way past the helpers and horses until he approached the corner where the lad stood, wrapped in so large a blanket that he was entirely hidden except his face and curly blonde wig. The stranger brusquely cried out:

"Say. I want to speak to you."

"Out with it," replied the lad.

"I had a little sister once, who, if she had grown up to be a girl, would have looked, I think, just as you look. What's your name?"

Old Griff came up at this.

"The sister dodge is played out around here," he said. "You see her name on every bill-sticking place in this whole camp."

"Is that her real name, then?" asked the young stranger.

"What?" exclaimed old Griff. "Do you suppose we would be playing tricks like that on such communities as we pass through? She's so much of a Bavarian that she can't speak fifteen straight words of United States talk. You'd better go inside, Annetta," he added, turning to the lad and pointing, as he spoke, to a curtained partition in the tent.

Annetta laughed, a chirrupy laugh, and disappeared as directed.

The young stranger was not satisfied. He started to follow. Old Griff laid his hand on his shoulder and said, "That won't go down here, young fellow," but the stranger shook the hand from his shoulder and proceeded.

Griff gave a little whistle, and, wherever he came from, there suddenly appeared between the young stranger and the curtained corner an immense man with a particularly brutal countenance, and muscles so big that you could almost see them working beneath his garments as he moved. He was one of the canvas-men, and rejoiced in the name of "Rocky the Rough."

"Better go back, young fellow," said Rocky. "I guess you ain't wanted here."

"I believe you've stolen my sister," said the young man, "the girl you call Annetta Belora; and I'm going to speak with her to find out about it."

These words seemed to amuse Rocky hugely. He laughed, a great coarse laugh that sounded like the rolling of big rocks in a hogshead.

"Your sister?" he cried. "Ho! ho! Your sister? Guess not, young feller! Guess not!"

The stranger could not, of course, understand why this huge man should be so merry, and took it as a personal affront to himself, as though it was he and his errand that were being laughed at.

"I'm going to see her, anyhow," he said, "and get from her own mouth something about herself."

"Guess not," said Rocky."

"Get out of the way!" cried the stranger, and he made a move to push past his opponent; but it was only a move, for he felt himself, spite of his own strength, which was by no means small, lifted from the ground and carried without the tent.

"Stay outside," said Rocky, as he placed the young stranger firmly on his feet. "I don't think it will be healthy for you to try and come within again. Your sister! Ho, ho!" Then he disappeared inside.

The young man was greatly put out in more senses than one, and stood just a minute thinking what he should do next. No one could have entertained for a moment any doubt of his honesty of purpose and earnestness, if he could have seen the expression of his face.

He felt a slight touch on his elbow, and, turning, by the dim light of the stars, saw a lad standing close beside him.

"Say," said the boy, looking up with a candid and eager expression in his eyes, "what is the sister racket that you've been a-givin' of us?"

The young man looked curiously down at the slender figure at his side whose words were so unlike the tone used or the earnestness of the attitude unconsciously chosen.

"If you'd tell me," continued the boy, "perhaps I might help you. I know 'em all well in there. And if I couldn't, perhaps I could tell you somethin' that'd make you holler."

"I have already said," replied the young man, somewhat impressed with the seriousness of the boy, "if you'll get me to speak with the girl they call Annetta, that's all I want."

"I can fix that easy enough," said the boy, "only what is the sister racket? They say men have been known to play that before with nothing behind to back 'em."

"You bring me to see Annetta," persisted the stranger, "and I'll show you whether or not I've nothing to back it."

"Tell me about it first," urged the boy, "and I'll promise that you shall see Annetta just as soon as you're through."

"What's the use of telling it twice?" argued the young man. "Take me to Annetta and you can be by and hear it all."

"No; you must tell me first," persisted the boy, "and if I don't bring you to Annetta quicker'n you can say scat, you may shoot me right here in my tracks."

There was a sober earnestness about the boy that attracted the young man to him strangely.

"Well, there ain't but little, anyhow," he said, "and it won't take long; but if you don't do as you say you will I'll break every bone in your body. D'ye hear?"

"Yes. Gallop along—my bones are all safe enough."

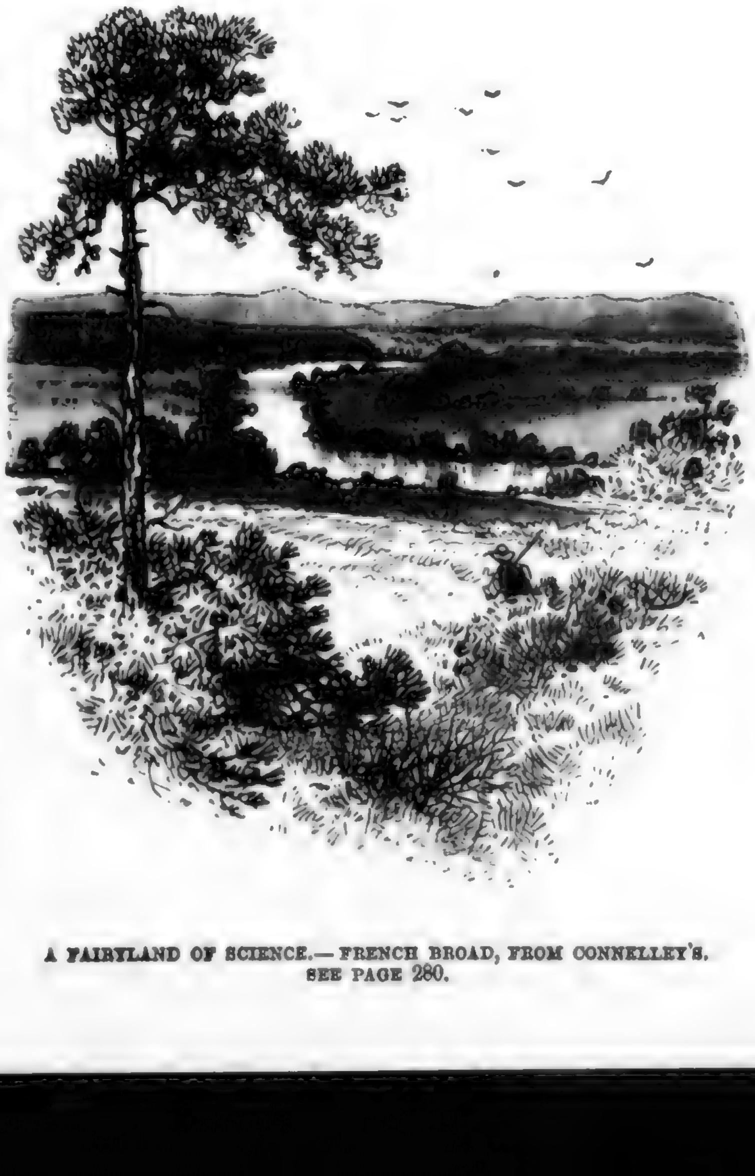
"My mother," began the young man, "was one of the best ring-performers in the whole profession. She was the first woman in the world that ever did a bareback act, and my father was one of those old-fashioned clowns, who told stories in the ring between the acts, and flung chestnuts at the audiences when nothing else was going on. When I was about twelve years old my mother was kicked by a vicious horse, against whom she had many a time been warned, and so badly hurt, that after lingering a few weeks in great agony, she died. We were three left: father, myself and a little sister only about four years of age at that time. Misfortunes heaped upon us then. Father lost his voice, became rheumatic, and wasn't fit for the ring or any show. I was a stout lad of fourteen or fifteen, and put out into the world for myself. I traveled three or four seasons with a show, but I didn't like it, and it didn't like me, so I came out here, and here I've been, sometimes in luck, sometimes dead strapped, ever since, with the exception of one Winter, when I thought it was about time for me to hunt up my relations, and went East to do it. None of us were much in the letter way, and we hadn't heard of each other during the twelve or fourteen years of our separation but once or twice. I might as well have staid here, for I didn't find hide or hair of them. Even their names were forgotten, except by some of the "old timers," who recalled the daring exhibitions of horsemanship of my mother. That's all, my boy," concluded the young man. "Now bring me to Annetta."

The brief and simple story had had something of an effect upon the lad. He had stood very quietly during its relation, but was breathing quicker and quicker as it proceeded, and when it was finished sighed deeply. It was but a momentary interest, apparently, however, for he replied immediately to the request by asking:

"What has Annetta got to do with it all?"

"Do?" said the young man, eagerly. "Everything. She was the image of my mother as she rode to-day. It was, for all the world to me, as though I was a little boy again, and sat looking with a child's delight at the picture she made in her ribbons, laces and spangles flying round the ring." The lad breathed another sigh.

"Where's the strawberry mark on the right arm, or



A FAIRYLAND OF SCIENCE.—FRENCH BROAD, FROM CONNELLEY'S. SEE PAGE 280.

the clip out of the left ear, so's you can tell by them who's who ?" he cried, laughingly.

The young man glanced down angrily at his companion for following up his words with such a sneer, and seized him roughly by the arm.

"Now, then, do as you said, you young rascal," he cried, "or I'll knock your head against a tent-pole! I'm sure the girl is my sister. I want to know it and prove it. I'm in luck just now, and she shall profit by it."

He was squeezing the young lad's arm with an uncomfortable pressure.

"What's your name ?" asked the lad, trying vainly to pull away from the grip that held him.

"What's that got to do with it ?" angrily replied the young man. "Bring me to the girl as you said you would, or I'll crush you into a thousand pieces !"

The boy uttered a cry of pain, and followed it up with the exclamation :

"Don't ! Don't ! I'm Annetta myself !"

"You ! The young man looked at him in the shadow with a fierce scowl. Why, you little liar !" he continued. "I ought to have known you were putting up some showman's job on me. If you were bigger I'd pummel you into a jelly !" and he flung him to one side.

Luckily the place where the boy struck was on the canvas, and between two of the tent-poles, or he might have been seriously injured by the shock.

"I'm not a liar," he said. "Look here !" and he took from his pocket the bag of gold dust that the young man had flung at him after his act. The young man seized him again and dragged him toward the light that glimmered through a chink in the dressing-tent. He took his head roughly in both hands, holding the face so that the light fell full upon it. An eager and intent expression came into the young man's eyes as he looked, and the lad trembled in the rough grasp. The paint was not entirely washed from the face and eyes, and there was enough there to show that the lad had told the truth. The scrutiny was kept up until the boy fairly writhed in the grasp with which he was held, and then, the young man loosening his hold and exclaiming, "Well, I'm blessed !" went wrathfully away, disappearing in the darkness.

The lad had dropped upon the ground, and alternately rubbing his arm and his head, was crying bitterly.

"Why didn't he tell me his real name," he muttered to himself. He's a crank, and h'ain't got no sister, leastways he don't deserve to have none, to treat a poor little fellow like me so. He'll be sorry for it some day."

The tent was suffocatingly full at each of the three performances on the next day. Old Griff was very happy, and Jerry Roper made frequent allusions to the salary list. At night it seemed as though the throng was so large that it made the canvas bulge out all around, and if any more had made an effort to come in, it would have split the tent from centre-pole to entrance door. The crowd was not an orderly one. It was boisterous and unruly, and had duly provided itself with deep potations to keep its feelings up to the proper height. Few women were present, and most of the men were without coats, some without hats, and many with their brawny chests bare. It was the last night of the show at that camp, and there seemed to be a determination, perhaps a predetermination from the first, to make trouble and guy the whole performance. The smart tricks of the funny man called forth only derisive laughter, and the riding was greeted with shouts and yells of contempt. Handfuls of earth and sand were thrown at the performers ; the "banners," over which the athletes jumped, were snatched away from those holding them ; and the hoops, over which paper had been pasted, and through which the riders were to plunge, were caught up and thrown toward the higher seats. The tumbling met with no better appreciation, and the man who performed the wonderful feat of turning ten back somersaults in the air before alighting was cried at as a crab or a coyote !

Old Griff felt the portent of some coming disaster, although he could not conjecture its cause. During their two days' stay there had been entire peace and unanimity between his men and the rude and rough characters of the camp. He aroused "Rocky the Rough" and some other of his men of equally stalwart frame and build, and posted them about his tent where they could be the easiest called upon and the most useful in the case of an open outbreak that seemed to be imminent. He thought the final act in the ring, when the lad made his appearance, would settle the whole difficulty, and hurried along the several numbers on his programme to reach it.

The increasing clamor and tumult should have shown him how mistaken he was. It seemed as though the crowd was working itself up to a climax, and reached it when the master in the ring announced the coming of the "most wonderful, and, at the same time, the most beautiful lady equestrian in the world." The lad appeared from the dressing-tent, looking, indeed, in his make-up, and by the glare of the central ring of blazing lights, very pretty. He was greeted with a shout, fairly a yell, whose character, whether of derision or delight, it would have been difficult to tell, it was so tumultuous. He tripped lightly over the sawdust and sprang easily upon the spirited horse.

They went twice around the ring amid comparative quiet. But it was only as though the crowd had stopped for a moment to take breath, or like a wild animal hesitating just before it springs upon its expected victim.

In the midst of this quiet a rough voice cried out from the throng :

"That's him ! We're fooled ! It's only a boy dressed up as a girl !" Then came shouts from all directions : "Out with him !" "Down with the tent !" "Away with the fraud !" mingled with curses enough to make the air blue.

It can never be known whether this great crowd of rough, wild men, more than three-fourths of whom were in a state of bewildering drunkenness and eager for a fight, used this as a pretext to start one, or whether they were really excited and angered over the deception played on them by Old Griff in dressing up a boy and palming him off on them as a girl. There is, at least, one conspicuous example in the show annals of the country, where a similar expedient by a manager in more civilized quarters excited an equal amount of indignation, which was exhibited in as prompt and effectual a manner, if not quite so vigorous.

For an instant Old Griff was dismayed at the situation of affairs, reached in such an unexpected way to him. He was never before placed in quite such a close corner. Thoughts flew through his head like lightning, suggesting ways out of the difficulty that surrounded him. The very thing that he thought would restore quiet, order and good feeling was the very thing toward which the tumult had been making up its way !

The frightened horse on which the equally alarmed lad rode did not get three times round the ring. A tall man, lying flat on his face on the ground, not twenty feet away from him, laid the long muzzle of a pistol on top of the earthen ring. There was a report, a wreath of smoke, and the handsomest and most valuable horse in old Griff's whole stud, with a bullet that entered his body just behind the nigh fore leg, fell; first to his knees, then upon his side, and, with blood flowing from his nostrils, died.

The lad luckily sprang nimbly to his feet and looked around for some way out of the ring. The shot stirred up the final drop in the animosity and venom of the drunken mob. The boy saw, in the instant that he looked, surrounding him an angry circle, glance whichever way he would, of fierce, ugly-faced, wild men, bent on mischief. He shrank away toward the centre-pole in an agony of fear, covered his face with his hands, sank upon the ground and burst into tears.

He was not alone, however. Old Griff called to "Rocky the Rough" and his three or four other helpers, and the half-dozen or so men were able to spring into the ring and gather about the centre-pole before the throng could stumble over the low embankment and have it all to themselves.

"Look out for the boy," old Griff shouted to his men.

The screaming, swearing, frenzied mob surged in upon the half-dozen men within the ring. The contest was too close for the use of the ever-present and ever-ready pistol, and it was, at first, a question of muscle and strength. "Rocky the Rough" swung his huge form, arms and fists in every direction, and where the latter stopped a man was sure to drop. Three or four pistol-shots were heard on the outside, and then some one called out, "They've cut the stay-ropes of the centre-pole."

That this was true, the tall spar itself began instantly to show. It swayed this way and that, but was held for a time by the canvas and the ropes of the side walls.

Old Griff stood just in front of the lad, and there the pushing, struggling and fighting seemed to be the fiercest, as though the crowd was most eager to wreak its vengeance upon him who had himself acted the deception. With a surge and a swing from the rear, that could not be resisted, Old Griff was thrown one side, and the foremost in the throng had his hand on the boy. He tore the curly blonde wig from his head, and, holding it in the air, with an oath called the attention of the mob to it, who replied with yells of satisfaction. He tossed it among them, and it was torn in pieces as quickly as a puff-ball is scattered by a brisk breeze. Then he forced the shrinking boy upon his feet, who, with clasped hands, begged for mercy, where there was none. He tore the thin gauze skirts from the trembling form, and tossed them piecemeal over at the crowd. These, too, were torn in shreds by eager hands. He seized the lace, ribbons and spangles at the neck, and, with one wrench, tore them away down to the waist.

There was a sudden hush in the tumult.

He who still held the torn pieces of dress aloft in his hand stood a moment in an attitude like that of the Apollo of Rhodes, and, as if petrified, then he was struck squarely between the eyes, and dropped like a piece of lead to the ground. The young stranger who had sought to see Annetta the evening before had delivered the blow, and seized the lad in his arms.

There was a singular unanimity of expression by those standing the nearest, as they looked. Old Griff started it.

"My God! Can it be?" he cried.

"Rocky the Rough," looking around, echoed the cry. A third took it up, and, finding it too deep for any other word, could only add:

"Well, *well*, WELL, WELL!"

Then Jerry Roper came in with it, a good fourth, adding to make sure his position:

"He's a woman, after all!"

The young stranger, holding the trembling form close to his own, and looking down into the painted, but by so much the more haggard, face, asked:

"Then you *are* Frank Crohger?"

"And—you—Robert?"

He nodded, but she could not see him, for she had fainted.

With the wayward and quick-changing moods of a mob, the fact that they had been warring upon a woman, and that the mistake was all their own, almost instantly becoming known to them, their animosity changed to a friendliness that was almost as rough as had been their anger in its manifestations. They hunted up the man who had shot the horse, and forced him to "settle" to an amount three or four times the value of the animal. They decided, late as it was, that the performance must all be gone through with again; that the tent must be cleared, and everybody must pay for admission. Woe be to that person, too, who showed the least inclination to criticise or object to one act. He should die in his tracks. And they meant it.

The tent was cleared, and the ring again prepared for work. The ticket-seller took his place in his wagon, and his only difficulty was in handing out the bits of pasteboard fast enough. No one stopped for any change or asked for it, and Old Griff said, when he came to settle up next morning, that one more such benefit would have made him the richest man in the profession anywhere.

Playing to such an audience the whole company fairly outdid themselves, and for the "Beautiful Bavarian" there was a tremendous ovation. When she did finally retire, threatened with a returning unconsciousness, from which she had not fairly recovered when she made her appearance, she could call herself a very well-to-do girl from the favors cast upon her by the generous crowd.

"Why didn't you tell me who you were last night?" asked her brother, after the performance was over, and they were sitting on the late Mrs. Griffin's box in the dressing-tent.

"I would have done so if you had let me," was the reply. "But you were so awful rough and hasty with me. Besides, I remembered the last words father ever spoke to me: 'Be a boy, Frank,' he said, 'as long as you can. Boys get along better'n girls. You have been such to me for more'n fifteen years now. And don't give yourself away to anybody, *anybody*, d'ye hear, unless you're cock sure you're got 'em dead to rights.'"

"She played it pretty fine on all of us, didn't she?" struck in Jerry Roper; "but I kinder suspected her, after all!"

Robert tried to persuade his sister to remain with him, but Old Griff seemed to have obtained a stronger influence over her than he could exert, and the next day she traveled on with the show, her and its reputation made by an incident that Ike Simms made the most of.

For the next year Robert had intimations now and then from her how it would all end, and the next season, when the show made its annual visit to the camp, she was, as Jerry Roper explained it, "No longer Frank Crohger, nor even Annetta Belora, except on the bills, but Mrs. Alonzo Griffin, as sprightly as a new india-rubber ball; as pretty as her mother; as prosperous and fortunate as a bonanza king just elected to the United States Senate; and as happy as a good husband, plenty of money and immense popularity with the public could make her."

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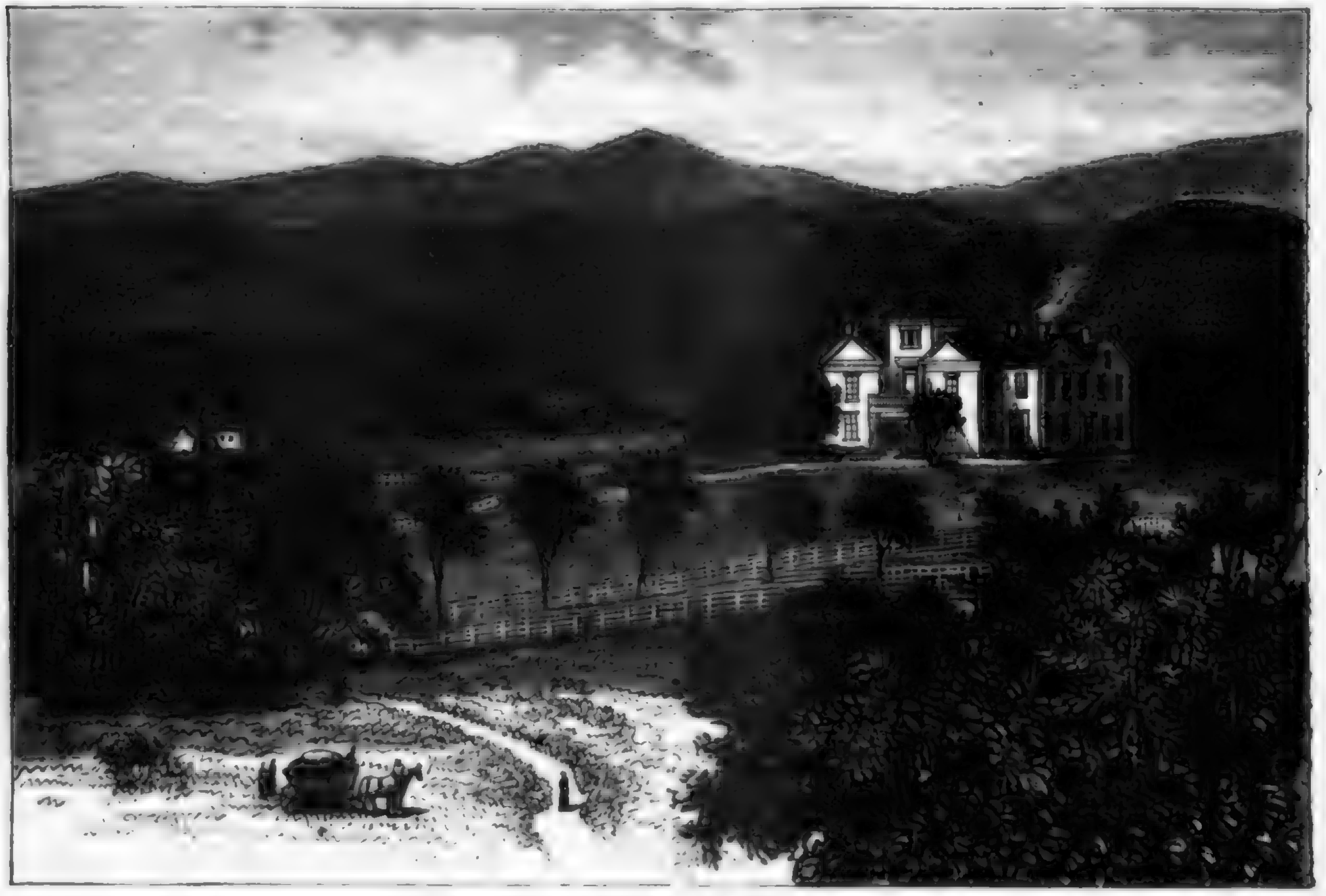


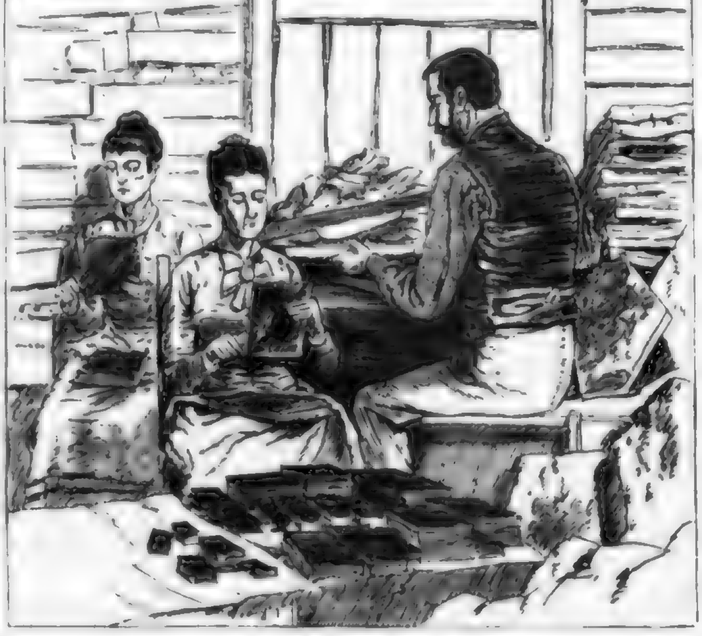
MOUNT PISGAH.

A FAIRYLAND OF SCIENCE.

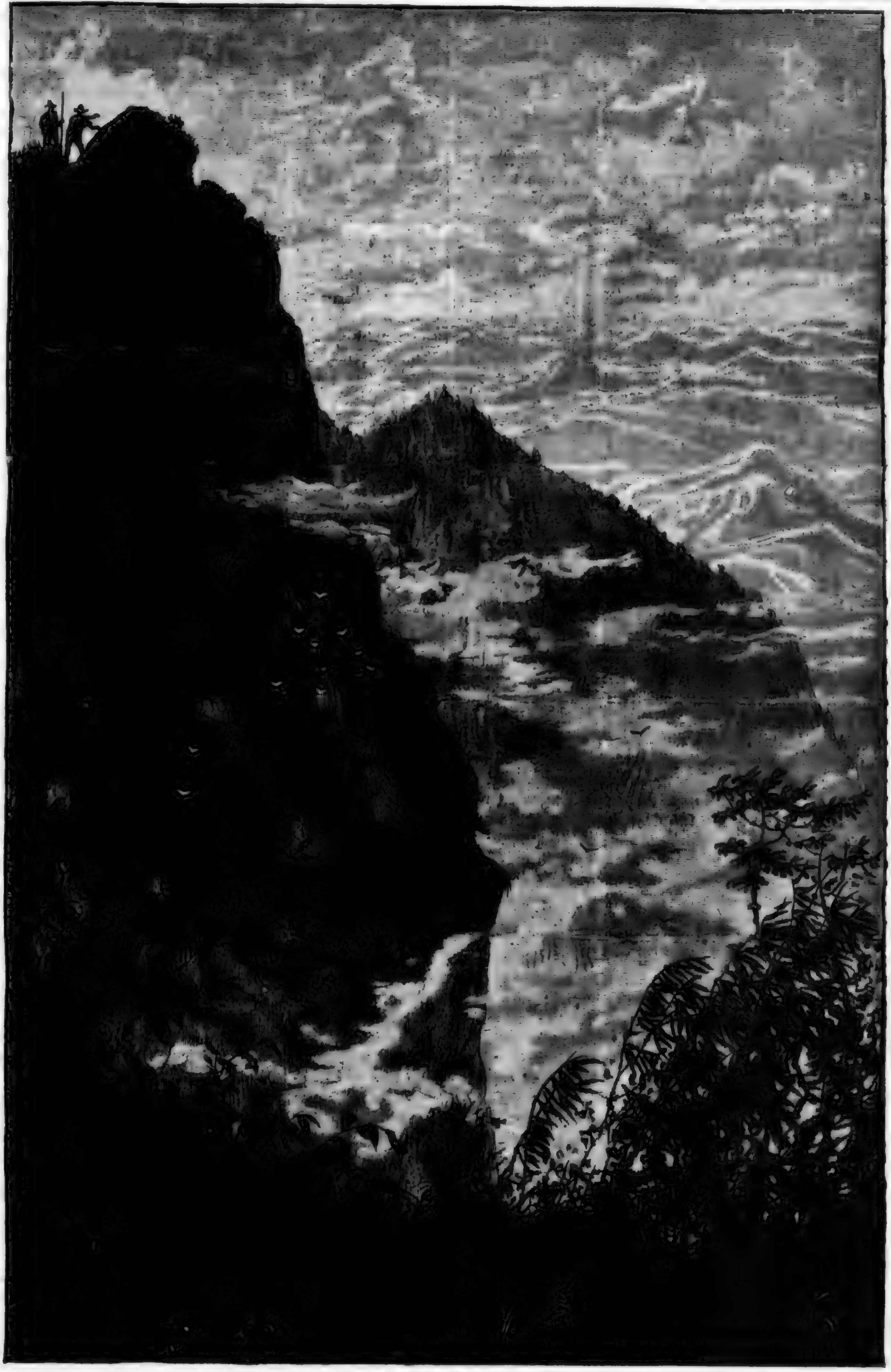
By Christian Reid.

There is a country that "lieth afar between mountains"—as every fairyland should—which is only beginning to receive the attention that is its due from lovers of science as well as from lovers of the picturesque. It is the culminating point of the great Appalachian system, the region where peaks and valleys alike attain their highest altitude, and where Nature in her most prodigal mood has lavished every gift that can make a country desirable: scenery unsurpassed for wild loveliness; a life-giving climate, at once invigorating and balmy; an atmosphere so exquisite that through its medium color becomes a new revelation; skies so soft and brilliant that they are a perpetual delight; a soil so rich that even the steepest mountain-sides repay cultivation; and the valleys, watered by crystal streams, are pictures of pastoral fertility; inexhaustible forests of the most magnificent timber; varied agricultural products, and, finally, a mineral wealth that up to this time has scarcely been explored at all. These are some of the claims which the mountain region of North Carolina makes to the careful study and observation that science has not yet given it.

And how much might science find to attract and repay it here! What secrets of past ages might not be revealed to the geologist by these great mountains, the oldest in the world, which stood firm during the period of the general upheavals and subsidences of the crust of the earth, where rocks of the Archæan or earliest age lie exposed, and where the history of the physical world can be traced in its successive formations! What fascination might not the true lover of nature find in unvailing the mysteries hidden in the depths of these trackless forests, where regions of vast extent are known only to the hunter and the game he seeks! How few of the hundreds of mountains that cover the country with infinitely varied beauty have ever been ascended, examined or scientifically measured? And to the mineralogist the land should prove a very garden of Aladdin.



CUTTING MICA.



VIEW OF ROAN MOUNTAIN.

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The barest statement of the minerals found here reads like a fairy tale—and much of a fairy tale it has been, up to the present time, as far as practical results are concerned!

Yet, from the beautiful flesh and rose colored marbles of the Nantihala to the great iron deposits of Cranberry, what fields for mineral exploration exist, to tempt scientist and capitalist! About 160 varieties of minerals are found here, many of them very rare, and some not discovered hitherto or elsewhere in America. Large deposits of gold, silver, iron, copper, zinc, mica and corundum abound. In Clay County is found the greatest mass of chrysolite rock in the United States, the area covered being 1,400 acres. Corundum has been found here in masses weighing as much as 600 pounds. The Cranberry iron mine in Mitchell County is one of the most remarkable iron deposits in America, and yields an iron equal to the best Swede. The ore is a pure, massive, granular magnetite. "The steep slope of the mountain and ridges which the bed occupies are covered with blocks of ore, some weighing hundreds of pounds, and, at places, bare vertical walls of massive ore, 10 to 15 feet thick, are exposed, and over several acres the solid ore is found everywhere near the surface. The length of the outcrop is 1,500 feet, and the width 200 to 800 feet." (State Geological Report.) Several analyses of this ore have been made which show upward of 90 per cent. of magnetic oxide of iron and about 65 per cent. of metallic iron. There is not even a piece of sulphur, which is the dread of iron-workers. Besides this outcropping, there are many other large deposits of the same magnetic ore, while in Cherokee County a vein of hematite, which runs by the side of a bed of marble for forty miles, is in many places from fifty to one hundred feet thick. This ore was used in forges by the Indians, and has always since been used by the country blacksmiths in preference to manufactured iron. Rich deposits of copper are found in many of the counties. Where the veins have been cut, in Jackson, they are large and very promising, but the ores of Ashe and Alleghany have so far proved most valuable. At Ore Knob the deposit of ore in quantity and quality is said to rival that of Lake Superior. The mica mines of this region are very valuable, and it is a curious fact that those which are most profitable at the present time bear evidence of having been worked at some former remote period—probably by the prehistoric race of mound-builders. The mica mining has brought to light a great many new mineral species. Says Professor Kerr: "The mica veins carry a larger number of rare and complex combinations than those of any other description. The corundum mines in the chrysolite ledges have also added to the catalogue a number of rare minerals and some new to science."

Merely to turn over the pages of this sober report,* conjures before one visions of the Ural Mountains rather than of the Appalachian. Concerning diamonds, we are told that "this rare gem has been repeatedly found in North Carolina," although no attempt has ever been made to prosecute a search for it. Various diamonds are described, some perfect crystals of the first water, and an instance is recorded of a beautiful *black* diamond found by some persons while washing for gold. Many other gems have been discovered—those of the first order sparingly, but the inferior stones in large quantities. Emeralds, rubies, sapphires and amethysts have been found in various places; but beryl, garnet, tourmaline, chalcedony and chrysolite are "widely distributed," and the first two are described as existing in beautiful crystals, some of which weigh as much as ten pounds! Yet, although the Indians preserved a tradition of finding stones "of various colors and beautiful lustre, clear and very hard," and although ever since the first settlement of the country these remarkable crystals have been picked up here and there by mountaineers scarcely more scientific than the shepherd who stumbled upon the first diamond of Golconda and sold it for a little rice, no one has followed up these discoveries by systematic exploration, and boldly demanded of the earth that it should yield what it possesses.

No one, that is, in the transmontane region; but in one of the counties east of the Blue Ridge the first regular mining for gems ever undertaken was almost immediately rewarded by the finding of the new and beautiful stone "hiddenite" or lithia-emerald. Of this stone Mr. G. F. Kunz, in a paper read before the New York Academy of Science, says: "Lithia-emerald, or hiddenite, is to the species spodumene precisely what emerald is to the species beryl. It is strange, in fact remarkable, that spodumene, which has always been to mineralogists a very unsatisfactory mineral in form and color, should at last prove to be one of the most beautiful—*a new gem stone.* It is to-day not only the most beautiful of American gem stones, but, like the emerald, has taken its place among the gems of highest rank and value. Its color is peculiar to itself, differing from the beryl-emerald in its vividness, or in a quality that I might term ethereal. I know of nothing to which I can better liken the tint than to the beautiful color produced by falling bits of uranine in water. It is a green of rare brilliancy. It may be asked why the new mineral has been so readily accepted as a gem of the first rank. I answer that it possesses all the characteristics that are considered vital in a gem stone, *i.e.*, perfection of color, hardness, transparency and rarity. As regards value, it has been sold for the price of diamonds of equal size. This is *the first purely American gem*, and its remarkable beauty merits the highest praise."

And this, "the first American gem," is the result of the first real search for these beautiful productions of Nature in a country where they have been known to exist from the earliest times! When one considers that, looking back through ages to the dimness of historic twilight, we find the great gems of the first order as we know them now, the most enthusiastic mineralogist could scarcely have hoped that the old earth would at this period of her existence yield out of her bosom a new sister for these royal stones. But since this has come to pass, what other marvels may not be hidden in these wild and beautiful fastnesses, where Nature herself seems to meet us face to face, and welcome us to a land where she has lavished everything that is hers to give?

For no treasure, were it of "gold and a multitude of jewels," could surpass that which the country already possesses in its incomparable natural beauty. Of this beauty much has been said of late, and people are beginning to realize what a picturesque and strangely neglected region lies within easy access. The railroads that were so long held at bay by the mountain barriers are now climbing them on all sides; large modern hotels are rising where but a little while back were only old-fashioned country hostelries, and the fashionable world has rushed in to change the character of quiet villages and quaint provincial nooks. It is according to the character of the gay world, however, to like to meet itself, so it does not wander far from the centres where people most do congregate. But the lover of nature and science will go forth into the wilds which surround him, and invite him with such irresistible fascination—and, if he be a true lover, he will find nothing to deter, but much to interest, at every step.

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* "Minerals and Mineral Localities of North Carolina."

He will soon perceive that the vast chains of the Blue Ridge and the Great Smoky which encircle this "land of the sky"—the Blue Ridge bending like a bow, the Smoky forming the string to the bow—are but its outward ramparts. Between them lies an elevated region 250 miles in length, with an average breadth of 50 miles, across which run several great transverse chains of heights. From the latter, spurs of greater or less magnitude lead off in all directions, while between are central valleys of exquisite beauty and rare fertility, opening back into little vales and coves among the hills. Through each valley sweeps a noble river, fed by a hundred minor tributaries, on its way to the Great Smoky. For the Blue Ridge, despite its lesser elevation, is the watershed of the region, and is not severed by a single stream, while the more massive barrier of the western chain is torn asunder by the great rivers that cut their way through it in gorges of wild sublimity.

The valleys, drained each by one of these rivers, are six in number. In the extreme north is the region of the New River and Watauga. These streams drain the counties of Ashe, Alleghany and Watauga, the most elevated section of this elevated land, where the valleys have an average elevation of 3,000 feet, and where luxuriant grass and abundant water make a country unsurpassed for stock-raising. The two great encircling ranges, after embracing this region in a wide sweep, draw near to each other in the northeastern extremity of Mitchell County, where, within a short distance, stand two famous heights, which Professor Guyot has called "the two great pillars on both sides of the North Gate to the high mountain region of North Carolina"—the Grandfather, the highest peak of the Blue Ridge, and the majestic Roan of the Smoky—while, between them, stands the transverse upheaval known as Yellow Mountain. In the beautiful valleys that lie between this height and the massive chain of the Black Mountains flow those crystal streams which are the headwaters of the Nolechucky.

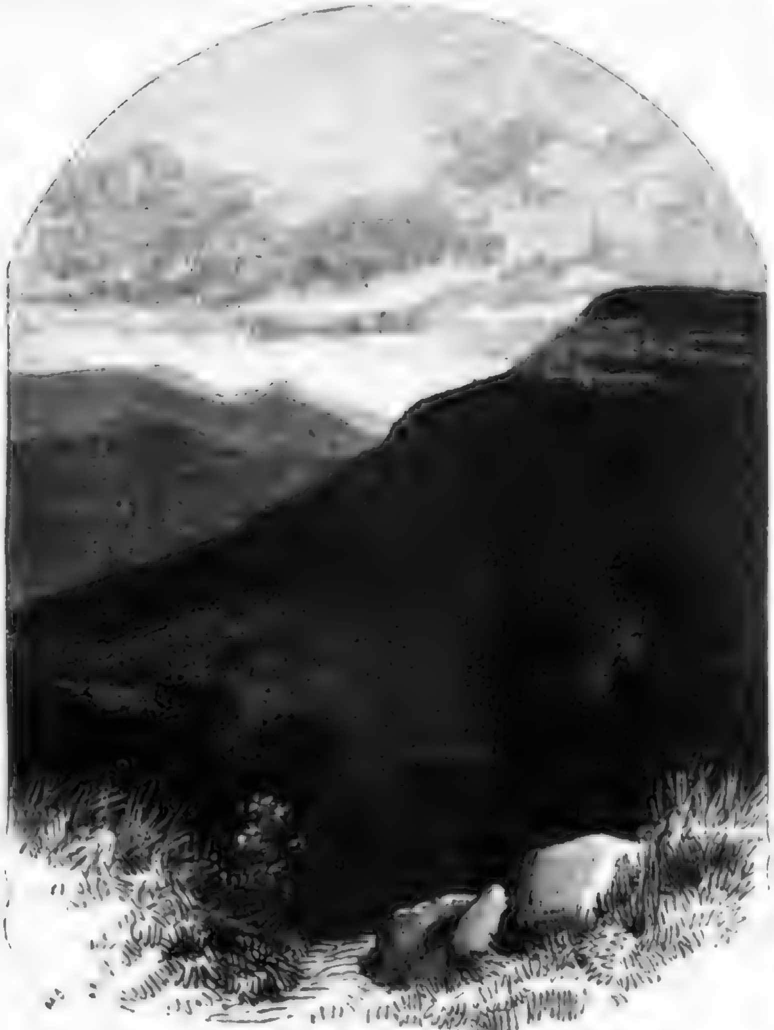
Beyond the Black comes the widest and longest of mountain valleys, that of the beautiful and famous French Broad, which, after uniting its three forks in the upper end of Transylvania, flows through an Arcadian valley, abounding in fertile loveliness and framed by azure heights, until, at Asheville, it enters among the hills, through which it cuts its way in a constantly deepening gorge for thirty-six miles, meriting well its Cherokee name Tahkeeostee, "Racing River." Who that knows anything of Western North Carolina but knows, by reputation, at least, this wonderful cañon, with its wild and ceaseless splendor of tumultuous waters, its overhanging cliffs, its noble mountains and fairy islets? In the time of stage-coaching it was an experience never to be forgotten—the day's journey from Asheville to the Warm Springs, along the turnpike which followed the old Indian trail and lay between the river and the cliffs, hemmed by the whirling emerald waters of the first and overhung by the fern-draped escarpments of the last, with vistas of wild and yet wilder beauty opening at every step. Now, a railroad train takes the traveler down this marvelous gorge in less than two hours, allowing only momentary glimpses of scenes on which the eye would wish to rest and linger with delight.

Going westward from Asheville and crossing the Newfound Mountains, the traveler is in the high valley of Haywood County, through which winds the lovely Pigeon—literal translation of the Indian "Waych." The country is of a fertility equal to its beauty. It is impossible to imagine anything more charming—blending of pastoral gentleness with the boldest and grandest features of mountain scenery—for here rises, near at hand, the great chain of the Balsam. This is the chief of the transverse ranges, both in length and general magnitude. Professor Guyot has said that, "considering these great features of physical structure and the considerable elevation of the valleys which form the base of these high chains, we may say that this vast cluster of highlands between the French Broad and the Tuckaseege Rivers is the culminating region of the great Appalachian system." Certainly it is a region which no one who has entered it will ever forget. Following the beautiful valleys of the Pigeon and its tributaries into the noble heights where they rise, one is surrounded by immense forest-clad mountains, of which the peaks lift their heads more than 6,000 feet in upper air, where mighty escarpments of rock contrast with the infinitely rich and varied verdure of the virgin wilderness, and where, in trackless gorges and deep chasms, the roar of unseen cataracts alone breaks the silence of solitude.

Beyond this massive range, which for forty-five miles presents a barrier that no waters pierce, is another region of infinitely diversified mountain and valley and stream. This is the Valley of the Tennessee and its great tributaries, the Tuckaseege, the Nantihala and the Ocona Lufta. The last-named, one of the loveliest of mountain rivers, flows through the rich lands of the Indian reservation—for 50,000 acres of the finest lands in Western Carolina are secured by the State to the Eastern Band of Cherokees—and empties into the Tuckaseege just before the latter river joins the Tennessee. Any one who wishes to enjoy wild and beautiful scenery may follow the Tuckaseege into Jackson County, the most uniformly mountainous of all the counties, where several great ranges meet and where imposing heights rise on all sides in bewildering number and variety. Among these heights the crystal river, swift as an arrow for the most part, has many vicissitudes, and wears many different aspects; now leaping down a wild gorge in stupendous falls, and again flowing through a beautiful and romantic valley, overlooked by wooded hills.

But in the Nantihala is to be found the most picturesque of all the picturesque rivers of this wonderful region. Its musical name signifies, in the Cherokee tongue, "Noonday Sun," from the fact that the mountains stand so closely above it that the sunlight strikes it only during the middle of the day. The river is in Macon County, and during most of its course it flows at the feet of precipitous crags, through vast forests and down inaccessible slopes. A traveler thus describes a view of its valley after crossing Red Marble Gap: "The first view of it will cause you to rise in your stirrups. It is a narrow valley with one farmhouse lying in the foreground. Around it rise massive mountain walls, perfectly perpendicular, vailed with woods and in height fully 2,000 feet. Directly before you is a parting of the tremendous ranges, and through this steep-sided gap purple lines of mountains, rising one behind another, bar the vision. The picture of these far-away ranges, in the subdued coloring of distance, is of inspiring grandeur. The river is unseen at this point; but if the Cheowah Mountain road is ascended, its white line of waters will be visible as it issues from the wild gorge at the head of the valley and bickering along between wood-fringed banks, at length disappears in the wilderness leading toward the great gap."

XUM

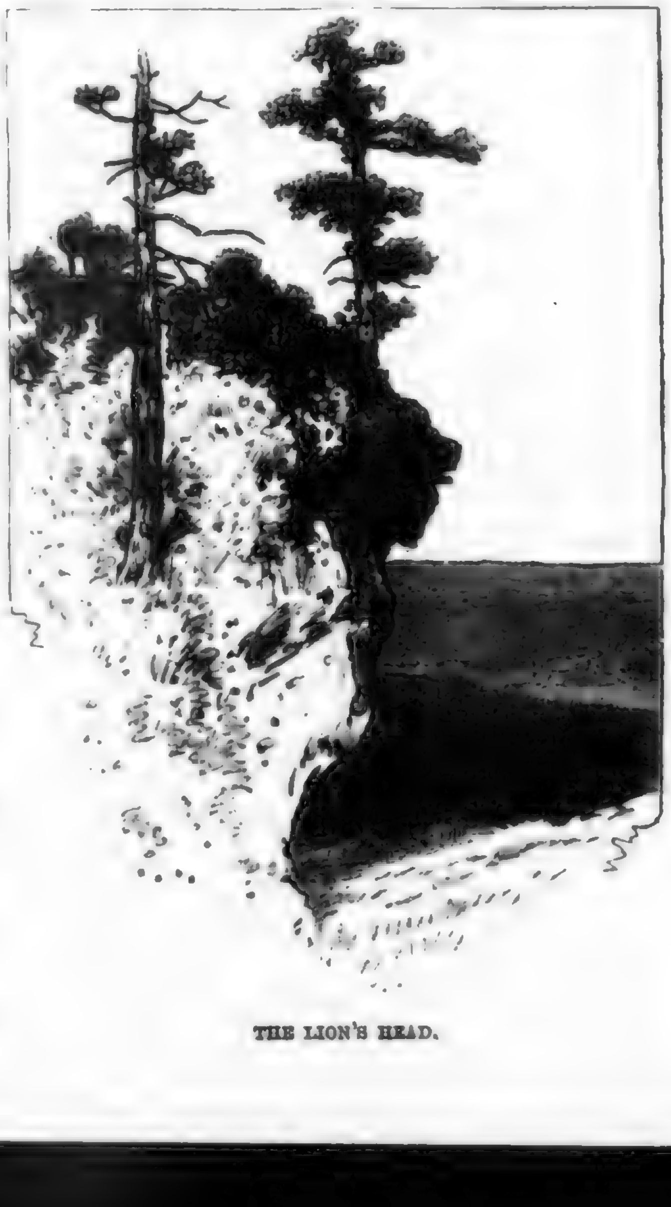


THE DEVIL'S COURT-HOUSE, WHITESIDE MOUNTAIN.

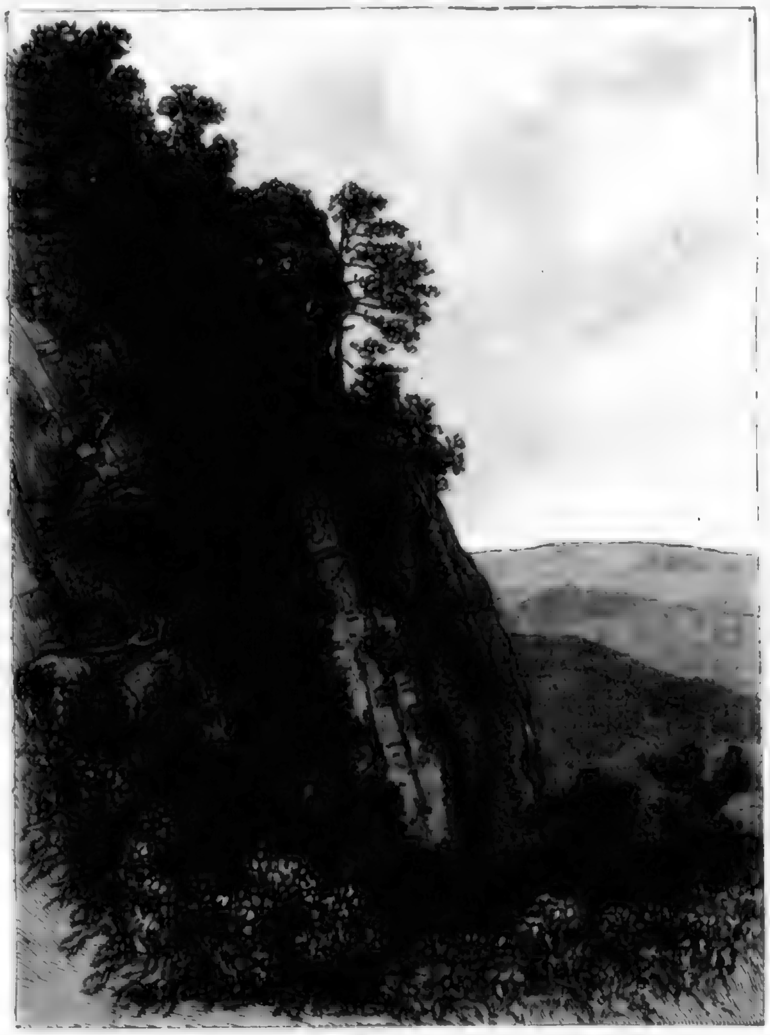
But it would extend the present article far beyond the limits assigned to it to describe in detail the varied, picturesque scenes which this beautiful and as yet only partially explored country contains. A volume would be required to do them justice. Yet it is impossible to close without a reference to some of its greatest heights. That which is most widely known is, of course, the Black Mountain, the loftiest of Atlantic summits, and the monarch of the Appalachian system. The range, known under this general name from the dark color of the balsam firs which clothe it, is about twenty miles long, a group of colossal heights that attain their highest elevation near the Blue Ridge. The chief summit—once known as the Black Dome, then as Clingman's, and now as Mitchell's Peak—is of arduous but not difficult ascent. The upward way lies through superb forests of deciduous trees and along the banks of the rushing Swannanoa, until, after a climb of five miles, the second base of the mountain is reached—a small, grassy plateau where a residence once stood. From this point the world below unrolls before the gaze like an azure scroll, while above, awful in its nearness and immensity, towers the dark mass of the Black, clothed with the sombre forest, into the depths of which the path now plunges, and which it does not leave again until the final summit is reached. Winding in snake-like turns through the close-growing firs, the trail climbs the steep shoulders of the great mountain, and then follows its ridges for several miles, until the bare, rocky peak, which is the highest point of land east of the Rocky Mountains, is reached, and all hardships of ascent are forgotten in the view spread before the gaze.

If the day is clear this view is almost boundless in extent and of infinite beauty. Range behind range of great mountains lie below, like a Titanic ocean stilled by some mighty hand. From this supreme elevation it is possible to study the structural character of the region and to count all the great chains that cross the country, while no words can express the varying and exquisite color that, like a glamour of heavenly enchantment, lies over the wide expanse. The whole earth, "and the beauty thereof," seems to spread at one's feet, and the airs that come to the high mountain crest are full of freshness and balm. To witness a sunset from the Black is something long to be remembered. But it is not only from its unsurpassed view that this great mountain is interesting. Its vast sides and flanks are clothed with a forest of bewildering beauty, crystal streams gush from its heights, and there is, altogether, a fascination about the wild, unpeopled region that goes far to account for the passion which caused Professor Mitchell to lose his life in wandering through its wilderness. Near at hand the massive heights of Craggy rise, but with a more gentle aspect, and a flora of rare interest. Its spurs extend southward until they end in the hills that encircle the gentle valley in which Asheville lies, with the French Broad and the Swannanoa at its feet.

Another famous mountain is the Roan of the Smoky range. Long known for its wonderful view, this noble height has now become a place of Summer resort since the erection of a hotel on its summit, more than six thousand feet above the sea. Like all the great peaks of the Smoky, its top is a treeless expanse, covered



THE LION'S HEAD.



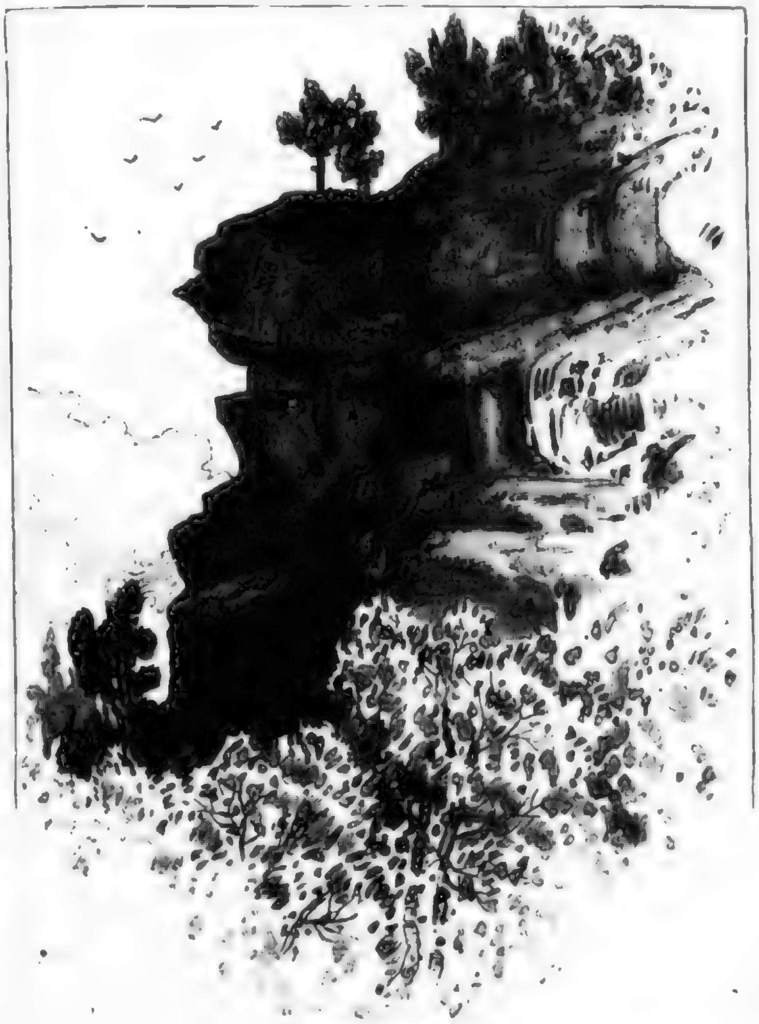
CÆSAR'S HEAD.

with luxuriant grass and mountain heather, and diversified by clumps of rhododendrons and azaleas. This beautiful prairie is surrounded by the balsam forest, which, on the North Carolina side, gives way, at a certain degree of elevation, to the deciduous growth that clothes, luxuriantly, the lower slopes of the mountain. On the Tennessee side, however, an abrupt precipice descends into far abysmal gorges. It is from the brow of this stupendous cliff that the view is obtained of which description can give no idea.

About fifteen miles distant, in an air line, stands the other great pillar of this giant portal—the Grandfather of the Blue Ridge, the dominating peak of that range and the oldest mountain of the world. From its summit the beautiful Piedmont country of North Carolina is spread before the gaze, broken at first by spurs of the Blue Ridge as great as the parent chain, and melting afar into the misty blue of the lower country. Chief among these spurs is the range of the Linville Mountains, through which the Linville River forces its way in a gorge of striking grandeur. This gorge, fifteen miles in length, is for the most part a narrow cañon, more than a thousand feet deep, into which the river plunges with a magnificent fall, then rushes impetuously onward over the rock-strewn bed which it has worn for itself during successive ages, while cliffs of the most fantastic form lean over its waters, dark woods surround it, and famous mountains overshadow it. Hawkbill, Table Rock and Short-Off Mountains, all landmarks of this part of the country, form part of the gorge, which, with its picturesque crags, its leaping waters and its depth of solemn forest, would well repay the lover of the picturesque for any difficulty that he might experience in reaching it. The whole eastern side of the Blue Ridge, throughout its length in North Carolina, abounds in scenery of the most romantic description. Crystal streams burst from the brows of the mountains and fall in beautiful cascades; great heights are clothed with an almost tropical forest from base to summit; the wild, fresh loveliness marking every scene, as the mountains descend gradually into the lower country, is a perpetual delight. But all this is changed when the range makes its sweeping bend around the South Carolina border. There one no longer finds the forest-clad peaks and gentle foot-hills, but abrupt escarpments of mighty rock break off short and overlook the sultry southern plains.

Such a height is that well-known under the name of Cæsar's Head. Much has been written of this place of resort, but no description can do justice to its widely extended view or its delightful and invigorating climate. Health and strength are borne on every breath of the breeze that comes to the great cliff, which descends in a sheer precipice of eighteen hundred feet. To one seated on this rocky point the world seems no more than a dreamland far below, a vast, shadow-dappled expanse, over which a magical blue light ever hangs.

Of much the same character is Whiteside,



PROFILE ROCK.

another great outward sentinel of the Blue Ridge, which stands within a few miles of the Georgia line. Its shining face makes it a landmark and beacon over all the lower country. The precipice from which it takes its name is fully two miles long, about two thousand feet high, and curved so as to form part of the arc of a circle. Its constituent parts are quartz, feldspar and gneiss, and there have been many valuable minerals discovered at the base of this most interesting mountain, although no regular mining has been done. The view from its splendid crest thrills one like noble harmony. The smiling valleys and green depths of forest far below, the azure fairness of distant heights, the misty sweep of ocean-like plain, form a picture of exquisite beauty. "From the orient to the drooping west" mountains on mountains rise, cloud-girt, blue-robed, soft as the hills of Paradise.

But to touch, however lightly, upon all the famous heights of this wonderful region, would lead one too far. He who will go and look for himself upon its beauty will soon acknowledge that "the half has not been told" —nor could possibly be told. Neither pen nor pencil could describe all that has been lavished here of natural and material wealth. Within a day's journey of the railroads which typify the power and civilization of the nineteenth century are spots as wild and trackless as the Sierras of the West, where Nature guards her secrets in the deep shadow of virgin forests, under cloud-capped peaks and by the flashing splendor of leaping waters. Shining cliffs and thundering rivers, azure heights and Arcadian valleys unite to form the beauty which charms one further and further into the heart of this region, which one may truly call the Fairyland of Science.

THE TERCENTENARY OF THE POTATO.

The often-repeated assertion that Sir Walter Raleigh imported the potato from Virginia is at once disposed of by the fact that he never was in that country; it is simply one of the many statements that are copied from one manual into another by lazy compilers. The claim advanced for Sir Francis Drake, whose statue stands in the main street of Offenburg holding a bunch of potatoes, is a different matter. Yet even in the case of Drake there is really no positive evidence. It is generally supposed—and the view has again been advocated in Justin Winsor's "History of America"—that the potato was brought into England by the colony that Raleigh sent out to Roanoke Island under Ralph Lane in 1585.

The colonists who were taken out by Sir Richard Grenville had a troublous time; the Indians were unfriendly, their food failed, and Grenville did not return with fresh supplies as soon as was expected. Accordingly, at the end of a year they were glad enough to be brought home by Sir Francis Drake, who, with his fleet of twenty-three sail, anchored at Roanoke in June, 1586, after his great expedition of reprisal in the Spanish Main. The unsuccessful colonists landed in England on the 27th of July. Did they carry the potato with them? One of their number was Thomas Harriot, the mathematician, the author of "Artis Analyticæ Praxis ad Æquationes Algebraicas . . . resolvendas," to whom Descartes was afterward somewhat largely indebted. Harriot brought with him several specimens of plants which grew in Virginia, and a careful description of the country as far as it had been explored. This description he published in 1588, with the title, "A briefe and True Report of the new found land of Virginia and of the commodities there found. . . . Discouered by the English Colony there seated by Sir Richard Greinville, Knight, in the yeare 1585 . . . at the speciall charge and direction of the Honourable Sir Walter Raleigh." A copy of the first edition, an exceedingly rare book, small 4to, twenty-three leaves, is in the Grenville Library in the British Museum; it was used by Hakluyt, and reprinted verbatim by De Bry in 1590. Among the roots Harriot describes there is none which answers to the potato; the one most like it, which he calls the "Openauk," having been identified as a species of sunflower, of something the same nature as the Jerusalem artichoke. Moreover, it is certain that the potato is not a native of Virginia, and probably not of any part of the United States except Arizona.

At the same time, Gerard, who gives a plate of the potato in his "Herbal" of 1597, and clearly distinguishes the *Papus orbiculatus* (our *Solanum tuberosum*) from the *Sisarum peruvianum*, or sweet potato, says that he received his tubers from Virginia. He planted them, as we learn from his Catalogue of 1599, in his garden at Holborn. This, however, by no means proves that they are indigenous in Virginia; they may either have been brought there by a ship coming from another country, or have been raised from others that had been imported thither in former years. Indeed, it has been suggested that the colonists of Roanoke might have found the potato in a cultivated state. Harriot's silence seems fatal to this theory. If he had seen potatoes grown by the natives, and had brought tubers home with him, he would certainly have described them in his "Relation." On the other hand, it may well be that Drake brought potatoes to England on his return from his expedition of 1585-6. His ships had touched at Virginia, and so Gerard may naturally have noted that his tubers came from that country. As the Spanish captains were strictly ordered to observe, and bring home, all new fruits and the like, it can scarcely be doubted that potatoes were by this time used as food by the Spanish sailors and colonists. Drake very possibly took a supply of them either from Carthagena, or, it may be, from some Spanish ship. While there is no evidence that the celebrated English navigator did so, there is at least nothing against it.

Going further back even than Drake, Mr. Clements Markham, C.B., has shown that there is ground for believing that the potato was a native of certain districts favorable to its growth throughout the Cordilleras of Peru, and that it had been preserved for us by the enlightened care bestowed upon its cultivation by the Incas.

Mr. Fuller has already shown in our columns the error of the old story, and described the tuber which really grows in Virginia.

ARE THE STARS PEOPLED?

Professor Proctor says: "It is almost impossible to say under what conditions life is possible or impossible. Men of science have lately been taught this in a very striking manner. For, judging by what they know of the state of things at the bottom of the deep sea, they concluded there could be no living creatures there. They reasoned that the pressure exerted by the water would crush the life out of any known creature, which was unquestionably true. A piece of the hardest and densest wood sunk to those depths has the water literally forced into its very substance, and the tremendous mail of the crocodile, or the thick skin of the rhinoceros, would be unable to resist a tithe of the enormous pressure exerted by the water at the bottom of the deep seas.

"Yet it is now known that creatures not only exist down there, but that, notwithstanding the great darkness which must prevail there, these creatures are provided with the means of seeing. So unlike are they to all other creatures, however, that they are unable to live out of their native depths, and when dragged up by the dredges, they are burst asunder and are killed long before reaching the surface.

"This should teach us that although it may be proved that in some inaccessible world, like Venus, or any of her fellow-planets, the conditions which prevail are not such as would be convenient to terrestrial creatures, or are even such as no creatures known to us could endure even for a few minutes, life may nevertheless exist. It is indeed tolerably certain that if there be living creatures in Venus (as for my own part I little doubt), and if among these creatures there be any which possess reasoning powers such as ours (which is not so certain), it must appear to such reasoning beings in Venus at least as difficult to understand how our earth can be inhabited as we find it to conceive what nature of creatures they may be which exist in Venus."

PHOTOGRAPHING A LION.

Farini, in his delightful travels, tells how, after killing a giraffe, he covered it with branches to protect it till his company arrived. Meanwhile he installed himself in a tree. Vultures soon attacked the leafy mass, till a well-directed shot brought down their leader, when they fled. Other sounds announced a fresh band of marauders. What were they? The vultures rose high in the air and then swooped down, only to dart away in alarm.

"Soon," he says, "I beheld an enormous lion gliding over the grass. Guided evidently by the scent, it moved toward the spot where the giraffe lay. Further off, a flock of vultures, by their strange action, showed the presence of a second lion. A third soon appeared between the two. What an unexpected quarry to behold, the three great felines nearing my ambuscade! They advanced slowly in line, the largest in advance—a superb type of the tawny, short-legged lion, with immense head, and rough, almost black, mane. When they reached the open space they drew themselves out and lay flat against the grass. The birds, with renewed cries, kept darting at them in a kind of fury.

"As the lions disappeared behind a clump, I descended from my post noiselessly to the lowest branch and examined my rifle. The next three or four minutes seemed hours. I knew that the lions were making steadily toward my tree. The large lion first came in sight, veered off, then cautiously made for the giraffe. Suddenly he halted, and remained motionless within leaping distance of the dead brute. He waited for his companions. One soon appeared on the opposite side, then the third between them. They made a sweep round to reach it at different points, and their leader awaited them. With a live quarry, if one failed the others were there to prevent its flight. They now advanced at the same gait, crawling flat against the grass. Did they hold their breath as I did. Then, with a sudden bound, the first lion cleared the heap, lighting on the other side with a roar of disappointment. His companions with a bound were beside him. They tore the earth with their claws, the air quivering with their deep bass, which changed to a sharp cough, as though a bone had lodged in the throat. Their four paws kept tearing up the ground, the sand flying with each roar. When their fury subsided, the leader began to smell around the heap, and to lick up the clotted blood, while the others seized some entrails drawn out by the vultures.

"I turned my eyes toward the sun now appearing above the sandhills. Surely the wagons are not far off. I look toward the point where they ought to appear. They are emerging from behind a hill some sixty yards from my aerie. Loulou gets down and strikes into the grass, his photographic apparatus on his back. One follows him, the rest group around the wagons. They had heard the roars, and Loulou was bound to photograph a lion's "At Home." How anxiously I watched his movements! What could I do? Not even cry out, "Take care." At last he halted on the top of a little sandy hillock. I saw the plate glitter in the sunlight. The large lion was busy tearing at the giraffe's shoulder, damaging the hide that Jan coveted for his stock of soles. Loulou worked away as calmly as if in his office; he quietly changed his plate for a second.

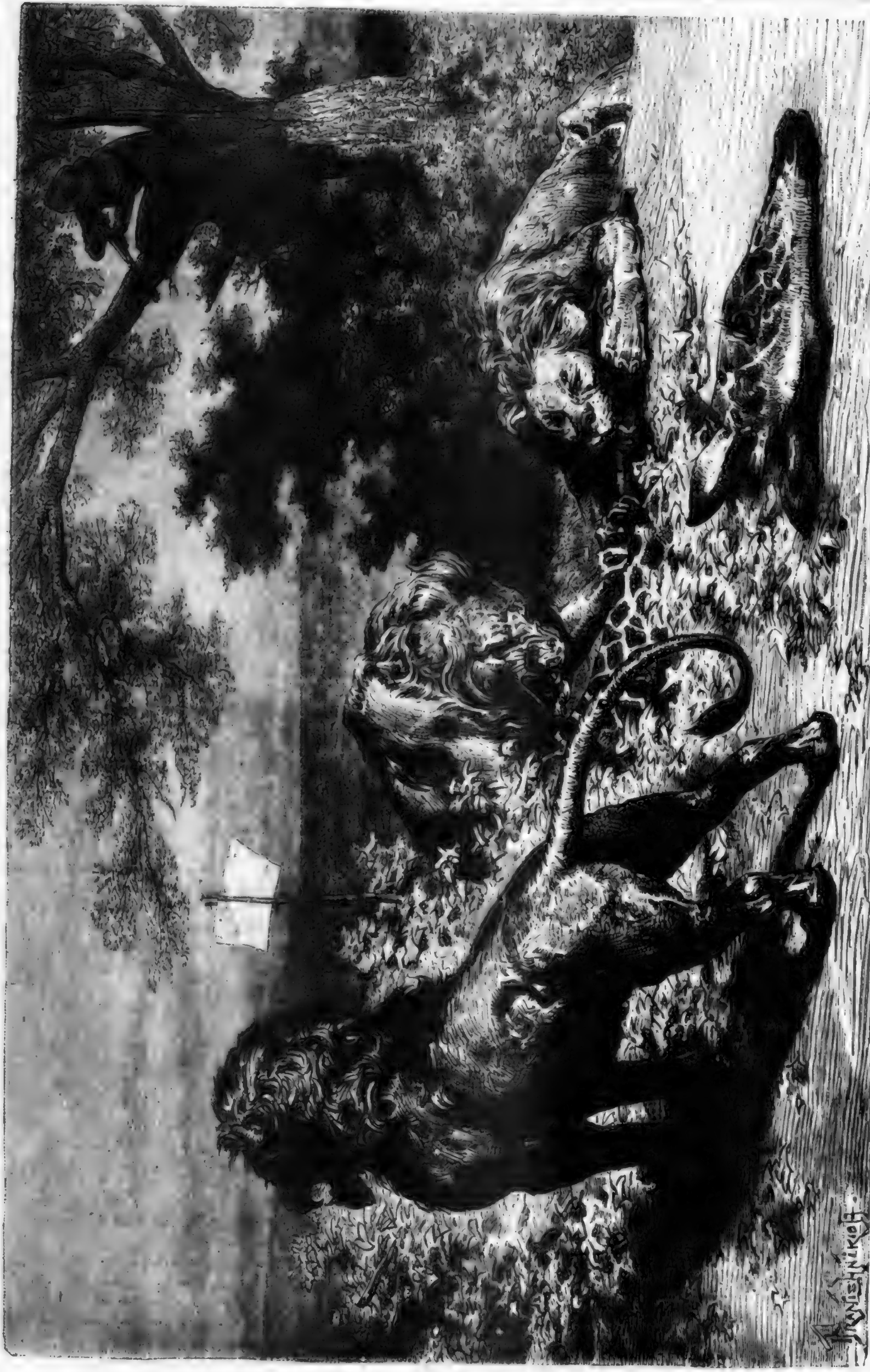
"Thirty seconds after he and his comrade had their rifles aimed. In haste, I took aim at the large lion's shoulder. Two rifle-shots, then a third.

"The lions leap up and utter roars like peals of thunder; one staggered back and sprang at the spot where another ball had just struck the ground. They lashed their sides with their tails; they growled in a hoarse, dull tone. Twice again we fired. I was sure I had not missed, yet there was no sign that our balls had told. The great lion suddenly dashed toward the hillock. As long as I could, without risk of hitting Loulou and his companion, I kept up my fire. The lion neared them in rapid bounds, his tail between his legs. They stopped firing. Loulou took another negative. His comrade stood beside him like a Prussian sentinel on duty. Were they mad? I could not hold in. I called at the top of my voice: 'Fire! fire! he will kill you!' The words were not out of my mouth when Loulou, the black cloth still over his head, sprang toward the lion, brandishing the support of his apparatus in the face of the furious brute. One of the hunters had been telling us how a hunter had frightened off a lion by bending forward and swinging a large black hat, and Loulou was calmly repeating the experiment.

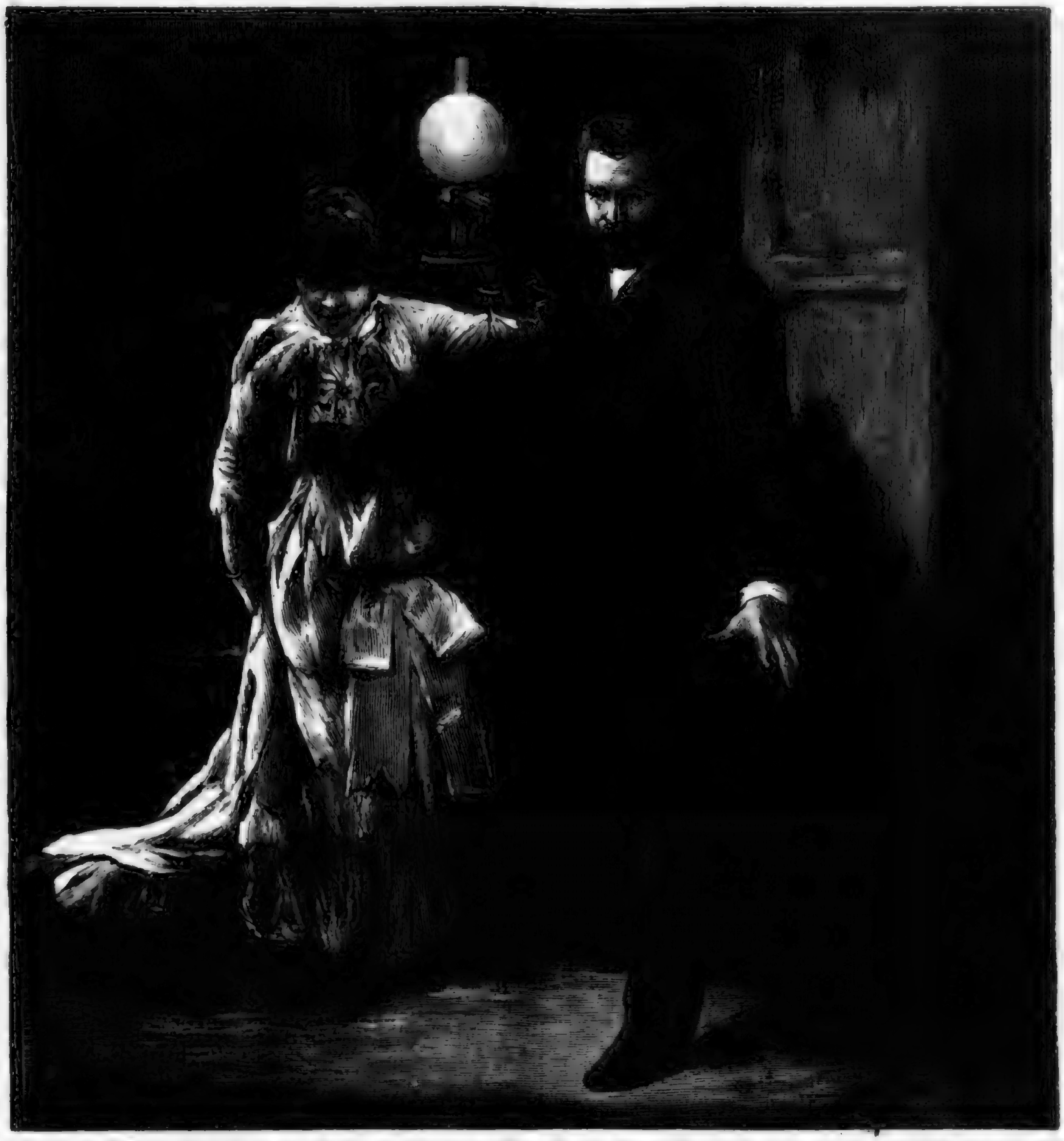
"It succeeded. The lion halted, lashed his sides, then bounded back toward the tree in all haste. Crack! crack! go our rifles, but the lion did not halt till he reached his comrades. 'A cat has nine lives,' we say of our domestic cat. This one seemed to have ten more. My rifle-balls seemed to have no more effect than the paper pellets of a child's toy gun. I fired at the two smaller lions, who soon retreated. The large fellow still stood defiant. I aimed carefully and steadily at his eye. I had no time to study the effect, for a gun went off just below me. A bushman had crept around and fired an old-fashioned blunderbuss.

"'Quick!' I exclaimed. 'Climb, or you are done for.' But instead, he darted toward some bushes; the lion bounded after him, then halted, and fell motionless on the sand.

"I descended from my perch, and we all gathered around the fallen monarch. Marks on the sand enabled me to measure his first bound over the giraffe. It was twenty-two feet. We counted in his skin seventeen bullet-holes."



PHOTOGRAPHING A LION.—"I FIRED AT THE TWO SMALLER LIONS, WHO SOON RETREATED. THE LARGE FELLOW STILL STOOD DEFIANT."—SEE PAGE 287.



A STRANGE REVELATION.—"WHEN WE REACHED A DOOR THAT SHOWED SIGNS OF A STRUGGLE WE STOPPED; WHILE CLAUDIA HELD THE LAMP ABOVE HER HEAD."

A STRANGE REVELATION.

By Thomas S. Collier.

Do I believe in unseen agencies?

The question is a hard one to answer to the satisfaction of most people, but if you have a half hour to spare, and care to listen, I will tell you of a part of my life that may be a satisfactory answer.

When I was graduated from college I was taken into my uncle's office as a clerk, but principally to learn the business; for I was the only male representative of the line except the relative to whom I owed my education and all the comforts that my mother and myself had enjoyed. He was very proud of his name, very proud of his manufactory, and very proud of the position he had won in the business world.

He had been so generous to me that not to love him was impossible, and no uncle ever saw his wishes more closely followed. I soon learned the routine of the office, and then, of my own free will, went into the workroom and made myself familiar with the many articles produced in the establishment of Winthrop & Winthrop. True, there was but one Winthrop in the firm, my father having died before he was admitted to partnership; but it had been Winthrop & Winthrop from the beginning, and my uncle would not change the name.

It took me three years to learn the business—that is, the mechanical part—and then it was deemed advisable to send a man West, as the rapid increase of the population made that section seem good ground to canvass for sales.

I had mastered the business so thoroughly that my uncle concluded to send me, and it was decided that I should start early in Spring. There were no railroads

XUM

running West then, though people had begun talking of them, and as the journey would be principally made on horseback, I was eager for it. The West, being a new country, was largely a land of romance, and I was young enough to feel and be swayed by the glamour of this.

Everything being in readiness, I left our manufactory early in April, and began working west, going first to Albany. Beyond that city I began seeking business, and May came before I struck off from the Genesee Valley and entered a wilder country. I stopped for my meals at such hamlets as I found along the way, but always carried a supply of provisions with me. I had been for two days following a road where the farms were not closely gathered, and as night drew on saw no chance of gaining a tavern, and determined to stop at the first house that offered shelter.

Reaching the crest of a hill, I saw a light flash out across the narrow valley ahead of me, and rode swiftly forward, as I knew that people went early to bed in this section.

Before I reached the first light a second showed beyond it, and I thought that I must be nearing a gathering of settlers. I soon reached the first light, and found that it came from a small cottage standing by the most pretentious gateway I had met. Heavy stone walls ran away from it, and there was the darkness of trees beyond. The gate was closed, but my call quickly brought a stout, middle-aged man to the door of the cottage, who, in reply to my request for lodgings, said:

"Of course you can get them here."

Then he came out to the gate, a lantern in his hand, and I noticed that he let the light shine on my face as he opened a way for me to enter, and that his gaze was intent and searching.

"We will go up to the house—the master is always pleased to see people," he said, and, as if no other word was needed, went forward along a wide driveway.

My horse followed until I checked him, and when he noticed this, the man laughed pleasantly, and said:

"Your animal knows where the stables are."

"But does the owner of the house desire company to drop in like this?" I asked.

"I should not have invited you if this was not so."

"Thank you; then I will go on."

We went slowly forward, and seemed to be ascending a hill, the side of which was covered with an orchard. The moon was rising, and showed a large house coming up beyond the trees, and I was surprised to see that it was the most pretentious mansion that I had met in this new land. It was of stone, two stories high, with heavy gables, and, unlike its near neighbors, which were regular in form and of the box order of architecture, it had wings, bay windows and jutting cornices, with a substantial and comfortable look pervading it that was very pleasant to a tired man.

"This is a fine place," I said, as soon as I became aware of its magnitude.

"The finest for many a long mile," answered my guide.

"Does the gentleman you call the master always reside here?"

"Oh, no. He is frequently in New York, and sometimes goes to Washington in the Winter. But this is the family house, and every man clings to his home."

We were now close to the house, and the man ran up the steps leading to the door, and gave the huge knocker a swing that sent a heavy clang echoing through the building.

The summons was quickly answered, and I heard my guide say:

"Tell the master that a gentleman seeks a night's entertainment."

He then returned to where, having dismounted, I was holding my horse, and, as though the matter was settled, unstrapped my saddle-bags and carried them to the door. Returning, he took my bridle, saying:

"I will look out for your animal now, sir."

As he spoke an elderly man appeared in the door, which had been left open, and said:

"Welcome to Markham House, sir."

He stepped forward with extended hand, and I hastened to meet him. His keen, gray eyes looked into mine with a searching yet pleasant gaze, which my own unflinchingly returned. He seemed pleased by this, and gave my hand an added pressure, then released his clasp, and turning to the man who had come with me, said:

"Take good care of the gentleman's horse, Wilkins, and I will see that the man is cared for."

Then he led the way into the house, and told the woman who met us to take my luggage to the great west chamber.

"Make a good fire in the fireplace," he said, "for the room has been long closed, and may be chill. And now, sir, let me introduce you to my family."

He led the way into a long and well-furnished drawing-room, and as I accompanied him, I said:

"Let me introduce myself to you first, sir," and I told him my name.

"Right glad am I to meet you, Mr. Winthrop; and let me say that my own is an old English name, for I am called Harold Markham."

We had walked slowly forward during this time toward a ruddy glow that showed behind a wide screen, and as we approached nearer I found that this came from a large wood fire burning brightly on a spacious hearth. Two lighted lamps stood on a table near this, and three ladies were grouped about it, who, seeing a stranger accompanying Mr. Markham, rose to greet me.

"This is Miss Claudia Markham, my cousin, and these are my daughters, Claudia and Bertha, Mr. Winthrop."

As they were mentioned the ladies greeted me, and one of the younger of them pushed an easy-chair forward and asked me to be seated.

The impression created by Mr. Markham's appearance was heightened by this acquaintance with his family, for they were plainly people of marked intelligence. The elder Miss Claudia showed strong personality, and though past middle age, was still very beautiful. The sisters were not alike, Bertha resembling her father, while Claudia had dark golden hair, a lighter and richer-colored complexion and deep blue eyes. She was not so tall as Bertha, but had the same well-rounded form, and dainty feet and hands. Both of the sisters showed strong soul-power, and it did not take me long to become very chatty with them.

Looking at me, the elder Miss Claudia, whom I will hereafter term Miss Markham, said:

"Years ago I met a Mr. John Winthrop. He was from Dorchester, and was a college classmate of our brother Rolfe, Harold."

"My father was named John, and the family belongs in Dorchester."

"How strange! I thought your face had a familiar look. I have a great faculty for noting resemblances, which Cousin Harold laughs at."

"I resemble my father in appearance," I answered.

This little bit of reminiscence helped me wonderfully, and Mr. Markham said: "How fortunate that we are to have a late dinner, for Mr. Winthrop must be hungry. His room is warm by this time. Will you show him the way, Claudia?"

The young girl rose, and led me into a great hall, and up a broad stairway to the second floor, opening the door to a large chamber, wherein a warm fire burned in the wide chimney-place. It was in the western angle of the building, and had many corners, a certain dimness that was peculiar and striking gathering in these.

"Our dinner will be ready in half an hour," said Claudia, "and so I will let you get ready for it."

And she left me, her bright eyes leaving a look I could not forget lingering in my memory.

I could not devote much time to looking at the room, though, save in the corners spoken of, the moonlight filled it with a bright radiance; nor did I give more than a glance to the landscape opened by the windows. Even the strange feeling of companionship that had impressed me on entering the apartment could not now receive my attention, for the bright face of the younger Claudia Markham lured me to the drawing-room, and I was soon descending the stairway leading to this.

Dinner passed pleasantly, and it was my happy lot to escort Claudia to the table. The talk was general here, but when we had returned to the circle of the fire-heat in the drawing-room, she said:

"Have you met with any haunted building in your journey, Mr Winthrop?"

"Not that I know of, or that was made manifest to me," I answered.

I had almost given voice to my knowledge of a strange feeling in the chamber assigned me, but did not; some sudden impulse that I could not understand, though I obeyed it, preventing me.

"Then I must tell you that you have reached one," said she. "Markham House has a ghost, or so it is said, for no person has ever seen it. Perhaps you may be the fortunate one," and she laughed, merrily.

"If I might be allowed a voice in the matter, I should prefer to select my own ghostly company."

This opening led to quite a long talk concerning these unsubstantial visitors, in which the characteristics of the Markham House ghost were discussed. Its main terror seemed to be its invisibility, for, though its presence had been felt, no one had been granted a sight of it.

"If we could only locate it," said Claudia, "then there would be some satisfaction in having such a neighbor, but we cannot do this."

The evening passed very quickly, and eleven o'clock came and brought Good-night time. Mr. Markham had invited me to remain at the house for a few days, but, much as I would have liked to, my business would not let me. I said that on my return I should be pleased to, if it would then be convenient for them to receive me; and, having learned that I expected to be in the locality in October, I was told that I would be expected. The ladies did not say good-by, having decided to take an early breakfast with me; a plan that was very pleasant, and we parted at the head of the stairway; Mr. Markham going to the door of my room, which was as bright and cheerful as a great lamp and brisk wood-fire could make it.

I did not go immediately to bed, but looked out of the windows, and then, putting out the light, drew a chair before the fire, and sat there dreaming. It was strange to see how persistently the flames kept forming the face of Claudia, for as soon as one log would break, another caught the picture and continued it.

Then the story that she had told of the ghost recurred to me, and I wondered what and who the intangible person was. The chiming of a clock recalled me to my need of sleep, and I was soon comfortably settled in the roomy bed. The light was extinguished and the fire low, but the moonlight made the principal part of the room distinct, and so dreamful and cozy was it that sleep came quickly, and I lost even the face of Claudia and the wondering concerning the strange being whom no one ever saw.

I woke suddenly, though not with a start, for there was no feeling as though I had been called. There was no strange apparition in sight, though the dim night radiance would have shown such had there been one. I did not even sit up at first, even while feeling that something new in my experience was about to occur. Gradually the peculiar impression of companionship that I had felt on entering the room returned, and kept growing stronger. I remained still, and in a little time heard the clock I had before noticed chime two.

The feeling of companionship deepened, and I rose and lit the lamp, but the new light revealed no ghostly form. And yet that feeling which one has in dense darkness when nearing another kept growing, and I sat down in a chair by the still smoldering embers, and waited for new developments.

Here the impression came that the unseen presence desired me to go to the window, and I did so; and, on reaching this, the same feeling directed me to the bed, and I was moving toward it, when the only palpable evidence that anything unnatural was transpiring came to me.

When I was midway between the bed and the window somebody seemed to pass so near to me that I noticed the wind of its movement, and a low sigh of satisfaction, as though, after long trial, some desired result had been reached, fell on my ear. I could see nothing, and kept on to the bed, when I heard the words "Good-night," spoken in a very low, yet perfectly distinct, voice, and involuntarily replied to them. Still there was no visible form, and my voice alone left an echo.

I felt that nothing more would transpire, and again sought my bed, soon falling into a quiet slumber and sleeping until morning; for my strange experience had brought no excitement.

The breakfast-bell was just ringing when I stepped into the broad hall leading to the stairway, and saw a woman standing at the window lighting this. The hot throb of my heart told me that it was Claudia, and, as she turned at my step, her beautiful face greeted me.

"Good-morning, Mr. Winthrop," she said, extending her hand. "I have waited to have the first word with you, for I wished to ask if you had seen the Markham House ghost?"

She smiled merrily, but her face sobered when I answered;

"No, Miss Claudia, I cannot say that *I* have seen it, but I think I have both felt and heard it."

"You have?" she said; and, though there was a merry twinkle in her eye, her voice was more earnest.

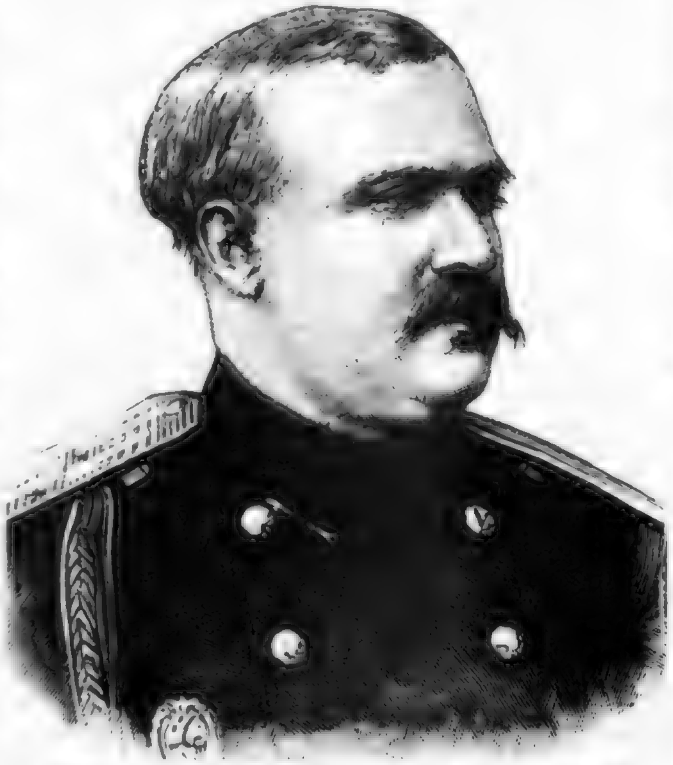
"Yes."

"I will ride a few miles on your road, and you must tell me of it."

"Nothing would give me more pleasure."

No other word concerning the ghost was spoken, though the family all met me at the table, but Claudia announced her intention of showing me a short cut to the main road I should follow.

We found our horses were ready at the door, and



GENERAL ANNENKOFF, PROJECTOR AND CONSTRUCTOR OF THE TRANSCASPIAN RAILWAY.—SEE PAGE 299.

Mr. Markham said: "We'll see you again in October. Good luck and a pleasant time to you."

And, then, with their good-byes for pleasant memories, I followed Claudia, who rode on in advance.

When we had reached the shaded wood road that led across the country to the main western thoroughfare, I told her of my night's adventure, and, as I went on, I noticed that she was strangely impressed.

"What do you think it is?" she asked, when I stopped talking.

"I do not know, but I think that when I come back in the Autumn, we can solve the mystery."

She laid her little hand on my arm.

"Mr. Winthrop, I will ask a favor of you. When I spoke to you this morning, I did so in jest, for I had no faith in our ghost, though there has long been a story that this strange feeling of companionship is a property of the place. As no person ever saw anything, I gave it no credence; but your story gives it a positive existence, and as you have been telling me of it, I, too, have thought that we can unravel the mystery; for that there is a mystery back of this demonstration I do not doubt."

"I think that it can be solved, and feel that we will be fortunate in the matter, though why I have this feeling I cannot tell."

"It is agreed, then, that you will visit us on your way home, and that we will make an effort to solve the riddle of the ghost?"

"Yes."

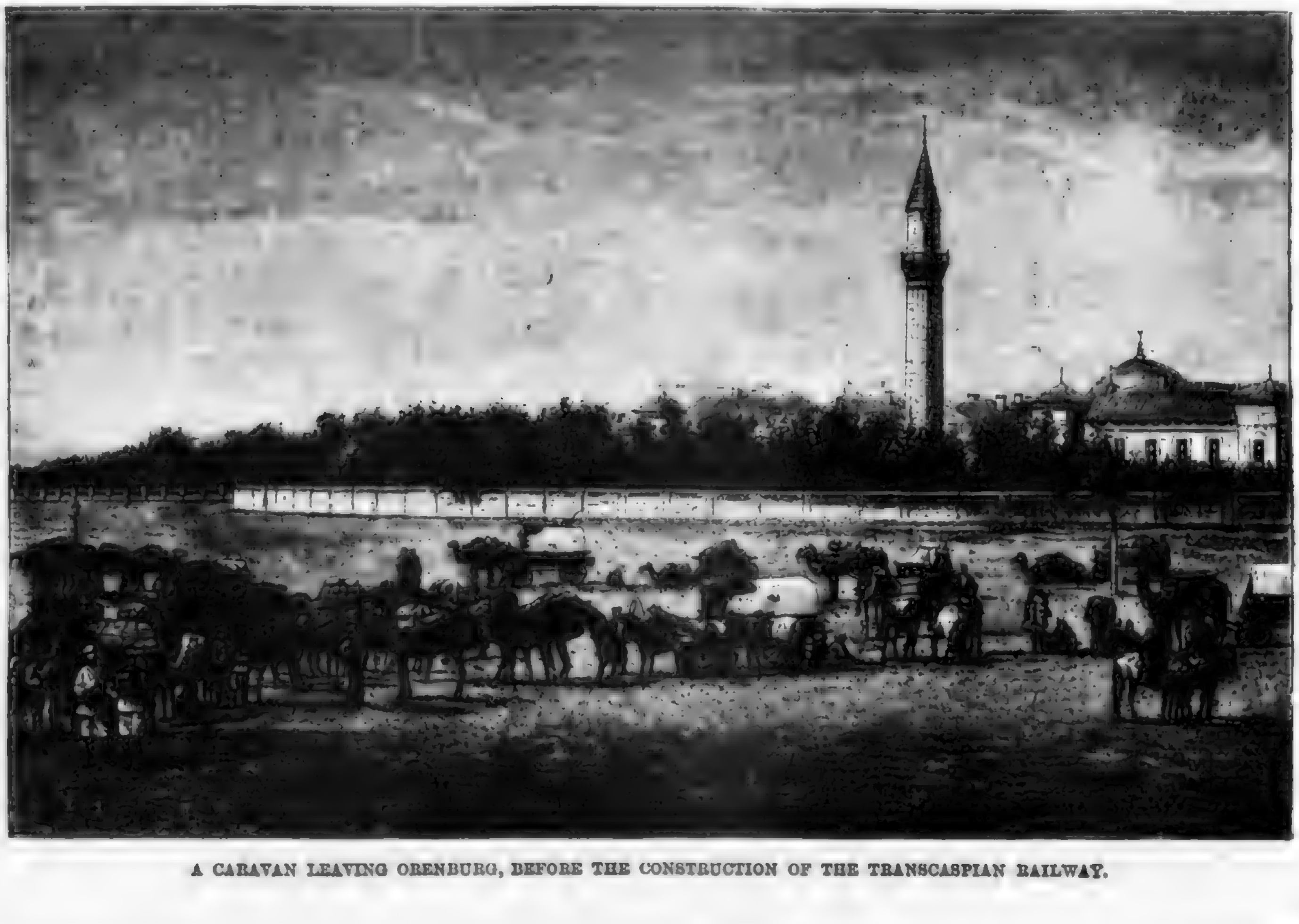
We chatted on, changing the topic, and soon reached a wider and more traveled road.

"I will say good-by at the crest of the hill yonder," said Claudia, and a pang shot through my heart as the words were spoken.

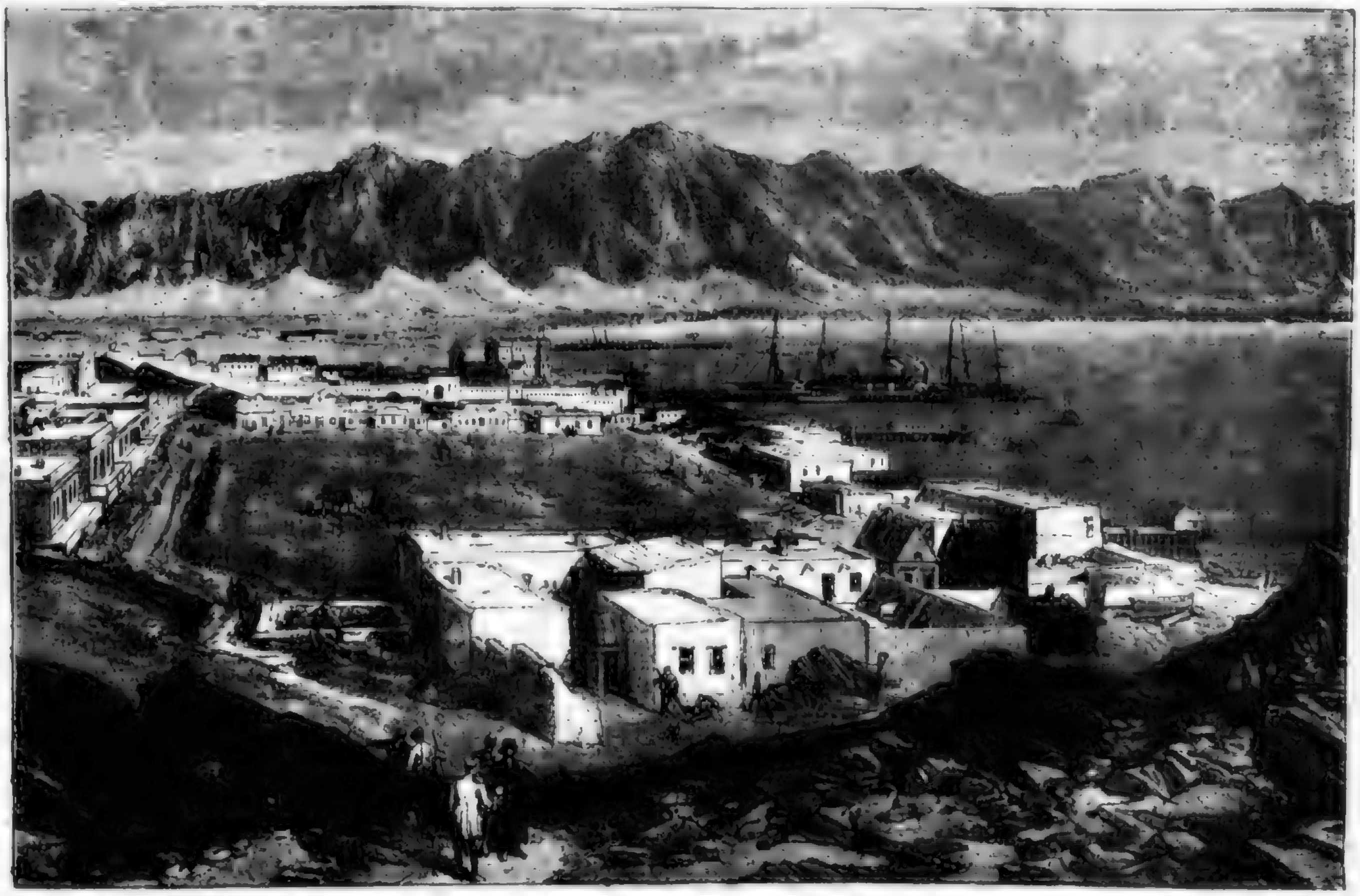
The spot was too quickly reached, and she gave me her hand, letting it linger in mine with a warm clasp. I raised it reverently to my lips.

"Remember the Autumn. Good-by, and God speed you," she said, as I raised my hat and went on. Two or three times I looked back and saw her waiting at the crest of the hill. Then I reached another height, from which the road wound sharply downward. I turned again, and her handkerchief fluttered a last good-by, to which my own replied. Then we gave our animals the rein, and were soon hid from each other.

Business prospered with me, and my uncle was well pleased, as his letters told, and I had permission to make



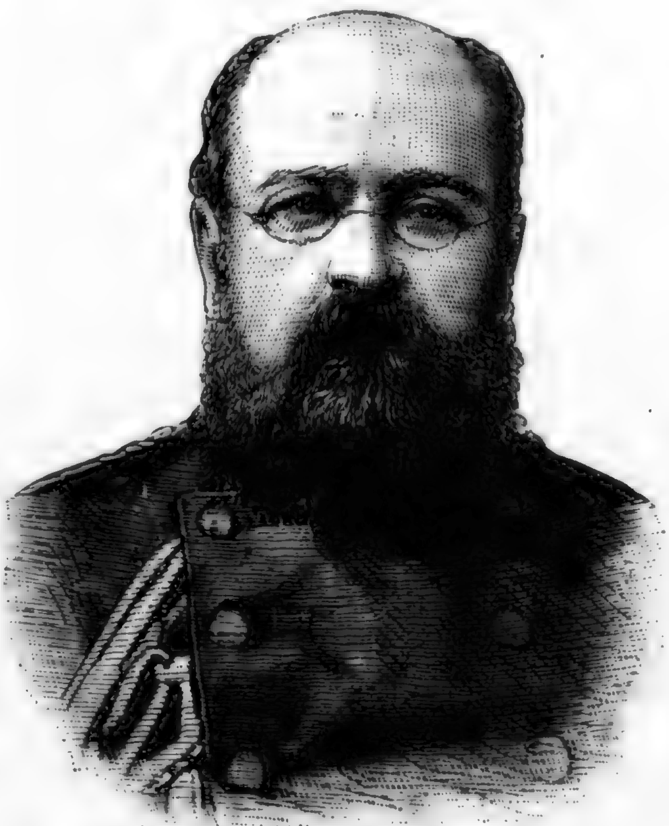
A CARAVAN LEAVING ORENBURG, BEFORE THE CONSTRUCTION OF THE TRANSCASPIAN RAILWAY.



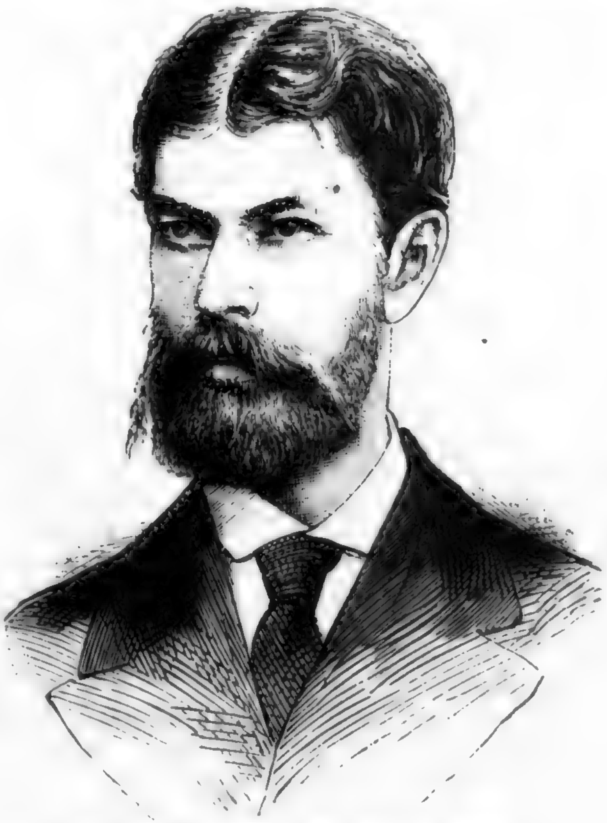
THE TRANSCASPIAN RAILWAY.—THE PORT OF KRASNOVODSK, ON THE CASPIAN SEA.—SEE PAGE 299.

my homeward journey as slowly as I liked. Glad indeed was I when I passed the State line of New York once more, and knew that barely a day separated me from Claudia Markham; for the few months that had gone by had told me that she was the one woman of the world for me.

It was near the middle of the afternoon when I reached the hill-crest where I had parted from her, and soon came to the turning that led to the wood road. The quick gallop of a horse sounded along this, and in a moment the rider came in sight, her bright hair flying free and her face more sweet and fair than ever; for my heart had recognized the approach of its idol even before Claudia Markham appeared. Something in her greeting



GENERAL KOMAROFF, GOVERNOR-GENERAL OF RUSSIAN TRANSCASPIA.



PAUL LESSAR, EXPLORER AND DIPLOMATIST.

XUM

told me that she had been wishing for me, and that this was not the first time she had followed this road looking for me, and a great gladness surged through my soul.

Her voice, her look and manner all told that she, too, was happy, and there was a merry chatter as we rode onward. The remainder of the family met us at the door, and I was immediately installed in my former chamber, a circumstance that pleased me very much.

The evening was devoted to an account of my travels, and as I was to remain no early breakfast was talked of.

When in my room I sat down before the fire and waited. The same feeling that had come to me when I first occupied the room came again, and once more I was impelled toward the window. Then another direction was indicated, and the power seemed stronger as this new place was reached. Not that there was any loss of personality or of intellectual force on my part, for I was thoroughly awake, and the working of my mind was particularly acute; but the unseen presence had obtained a stronger mentality, or, perhaps, a better term would be, a stronger power in expressing its desires.

The door was next indicated as a point of destination, and on reaching it I knew that I was to open it and pass out into the hall. I did so, walking softly, and was led—for no other word can so well express the strange guidance—through a passage that ran off from the main stairway northward. Having reached the end of this, I retraced my steps, and at the door of my chamber heard the same low "Good-night."

Nothing further transpired that night, and in the morning I told Claudia of my experience.

"When do you think you will reach the end of the mystery?" she asked.

"To-night."

"Why?"

"I cannot say definitely, but it seems so. There is a thought in my mind that the mystery is near its solution, though why I should have this idea I cannot tell."

We decided not to talk much about the matter, but to let it develop as it would, and in the morning we went riding far into the woods, where the later Autumn flowers still flaunted their purple and golden plumes.

The day was a joyous one for me, though my eagerness to reach the end of my strange experience, made me long for night to come.

I had scarcely closed the door of my chamber ere the feeling of which I have told became manifest, and I gave myself up to its guidance.

It began by sending me to a window, and then back and forth across the room, until it had reached the desired amount of power, when it led me to the door and out into the hallway. I had made but a step in this, when a door opened and Claudia came out and joined me. For an instant the feeling of guidance seemed to weaken, but, as Claudia did not speak, it resumed its composure, and we went forward, following the course of the night previous; only, instead of going to the end of the hall, we stopped in front of some quaint paneling. Here, I was impressed to run my hand heavily along the oak carving, and soon came to a part that seemed loose. Pressing this, a door slowly opened, showing darkness beyond.

Claudia's hand sought mine and clung to it, but only for a moment, as I said, immediately and involuntarily:

"We shall need a light."

"I will bring one," whispered Claudia, and she sped back along the hallway, soon returning with a lighted lamp.

This revealed a flight of steps running downward, and these we were impelled to descend. The passageway was damp and narrow, and seemed to run out to and through the wall of the building. I soon knew that we had reached a depth lower than the first floor, and after this we came to a level way, arched with masonry. This level was less damp than the part containing the steps, and in a little time grew more high and afforded better air.

I saw that this path had not been used for many years, and when we reached a door that showed signs of a struggle, stopped, but the strange influence became so imperative that I threw it open, while Claudia held the lamp above her head.

A cry of horror escaped her, but she did not retreat or faint, only her clasp on my hand grew firmer.

The opening of the door had revealed a long and narrow chamber, arched and strongly built of brick and stone. There were shelves and closets in this, and a small desk that was thrust against the wall.

But what had caused Claudia's cry, and the thrill of horror that ran through me, was a grinning skeleton that sat upright against the wall in a corner, a mass of decaying clothes about it, and a stained parchment in its crumbling hand.

Two other skeletons lay on the floor, mingled with evidences of a desperate struggle. Broken pistols, an ax, a sword-blade here, its wrenched handle at the further end of the apartment. One of the skulls lying on the floor was rent, as though broken by a blow from the butt of a pistol, and sudden death had evidently come to all of the people whose bones we saw.

A strange influence impelled me forward to where the seated skeleton held the stained scroll, and I picked this up. Its face was evidently a legal document, but on the back a number of lines of clear writing showed As I held these to the light to see what they contained, I discovered that they had been scrawled in blood with a piece of sharpened wood or metal. The blood was still bright and red; and, as I began to read, the influence that had guided me vanished.

The writing was bold and plain, though it had evidently been written with great difficulty. There was but little of it, and it was the message of a dying man to his kindred. Here it is:

> "If this should ever meet the eye of any person, it will probably be a Markham that reads it. To him I would say that I, Harold Markham, was followed to this, the treasure-vault of the house, by my cousins, Walt and Hobart. They attacked me, and in defending myself I killed both; but I am so grievously hurt that I cannot crawl forth from this place. It is my wish that we shall all be buried among our people, for death pays all debts, and this quarrel is not the world's, but our own. The Markham plate and treasure will be found in this vault.
>
> "If any other than a Markham finds this writing, to him I say, see that the last request of a dying man is fulfilled."

There was some more writing, but it was indistinct, for death had evidently been too near for the weak hand to be held to its task.

"Do you know anything of these people?" I asked of Claudia.

"I have heard of the mysterious disappearance of three cousins, who were joint heirs to the place," she answered. "Father will know. Shall we call him?"

"It may be best," I said," and we retraced our steps.

She had given me the lamp, and her hand was on my arm. I could feel that its clasp was that of a person greatly excited.

"Was it not dreadful," she whispered, as we neared the steps; "this death alone in such a place? And to think that we should have been the people selected to discover this tragedy."

Her hands clasped my arm. Something in the movement caused me to look into the beautiful face beside me, and a glance that met my own swept away the bounds that I had set for my tongue, and gave my love a voice.

The beautiful face drew nearer, the hand-clasp was stronger, and the warm sweetness of lips that were not turned away told me that the future would indeed be bright to me.

Only a little time did we give to joy, and then we went up the steps, and Claudia rapped at her father's door.

When he responded to the summons, a hasty explanation told of our experience and discovery, and leaving Claudia in the hallway, he went with me to the vault.

"This solves the mysterious disappearance," he said. "It is a short story. A little time after the house was built, its first owner, being an eccentric man, likely to create just such a hiding-place, it fell to the share of three cousins, who were suddenly missing, and of whom no trace has ever before been found. As the money and plate that were part of the old man's fortune were also gone, it was surmised that robbery and murder had taken place. Our branch of the Markhams then came into possession, and have held ownership ever since, but none of us have known of this secret place, nor is it shown on the plan of the house."

He turned over the parchment on which was the writing, and found it to be a deed of the property. It was folded, and he opened it, and there found another draught of the building, showing the secret door and the plan of the vault.

Yes, I married Claudia Markham, and we live in the old house now, for it is indeed a pleasant place, and the railroads have brought us very near to all the city's enjoyments.

And there have been no more ghostly manifestations since that time, for evidently the dead Harold Markham had only sought to show where the mystery of his race could be solved, and when this end was accomplished, had no further business with those who dwelt in or visited the home that he had hoped to enjoy.

PAUPER PRINCES.

In ancient Russia there were three classes of princes: (1) The descendants of Prince Rurik; (2) the descendants of the Lithuanian Prince, Gedimin; (3) persons belonging to various foreign nationalities, chiefly Mordvinians and Tartars. Many of the princely titles which had descended from the times of the petty princes had become extinct in 1700, but forty-seven still existed, some of which were very numerous; the Gagarins counting twenty-seven, and the Volkonskys thirty, representatives at one time. Eleven more of these princely lines have now become extinct. The rest of the tolerably numerous descendants of Rurik do not bear the title.

Of the posterity of Gedimin, there were extant in 1700 four branches, one of which, the Galitzins, has become extremely numerous. The great mass of princes, however, are not of Russian origin at all, but are of Tartar, Mordvinian and Georgian extraction. This swarm of foreign princes is explained by the fact that the Czars of the sixteenth and seventeenth centuries, in their zeal for the diffusion of the Greek faith among the Tartars and Mordvinians, commanded all belonging to those nationalities who accepted that belief to assume the title of prince. There are at least eighty of these Mordvinian families who are entitled to bear the title; but most of them live like simple peasants, and occupy themselves, among other professions, with that of cab-driving in St. Petersburg.

ADVENTURES OF NAPOLEON.

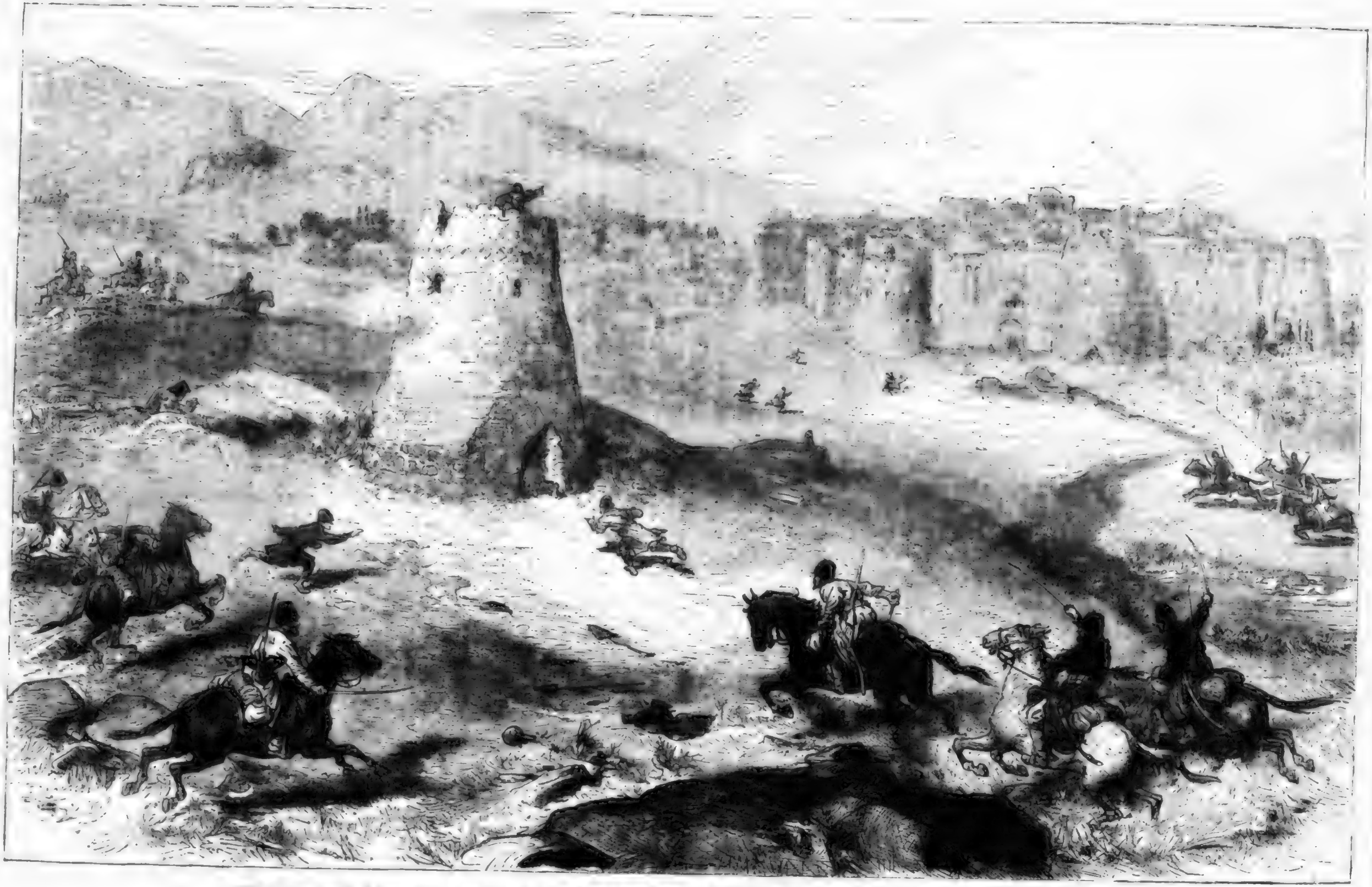
One never grows tired of personal details, even to the minutest, of the adventures of Napoleon, and, indeed, of all the Bonapartes. What an interesting little book, for example, might be written called "Old Clothes": being an account of the garments worn at different periods by Napoleon Bonaparte, some time Sub-lieutenant in the Regiment of La Fère, and afterward Emperor of the French and King of Italy! The straight-cut coat, stand-up collar, powdered and pomatumed hair of the student of Brienne and the Ecole Militaire; the lieutenant, the captain, the colonel; the general's garb, never complete without topboots, a plumed hat, and an immense tricolored sash, of the Revolutionary epoch; the red velvet coat, embroidered with gold, of the Consulate; the Imperial Coronation robes, designed by Talma; the green uniform of the Chasseurs of the Guard; the gray greatcoat and little cocked hat of Austerlitz; the furred pelisse of Moscow; the short velvet cloak, silk tights, and *chapeau à la Henri Quatre* of the Champ de Mai, 1815—ay, and the shabby nankeen suit and broad-brimmed straw hat of Longwood. What a book! To be copiously illustrated, of course!

SOME SMALL STATES.

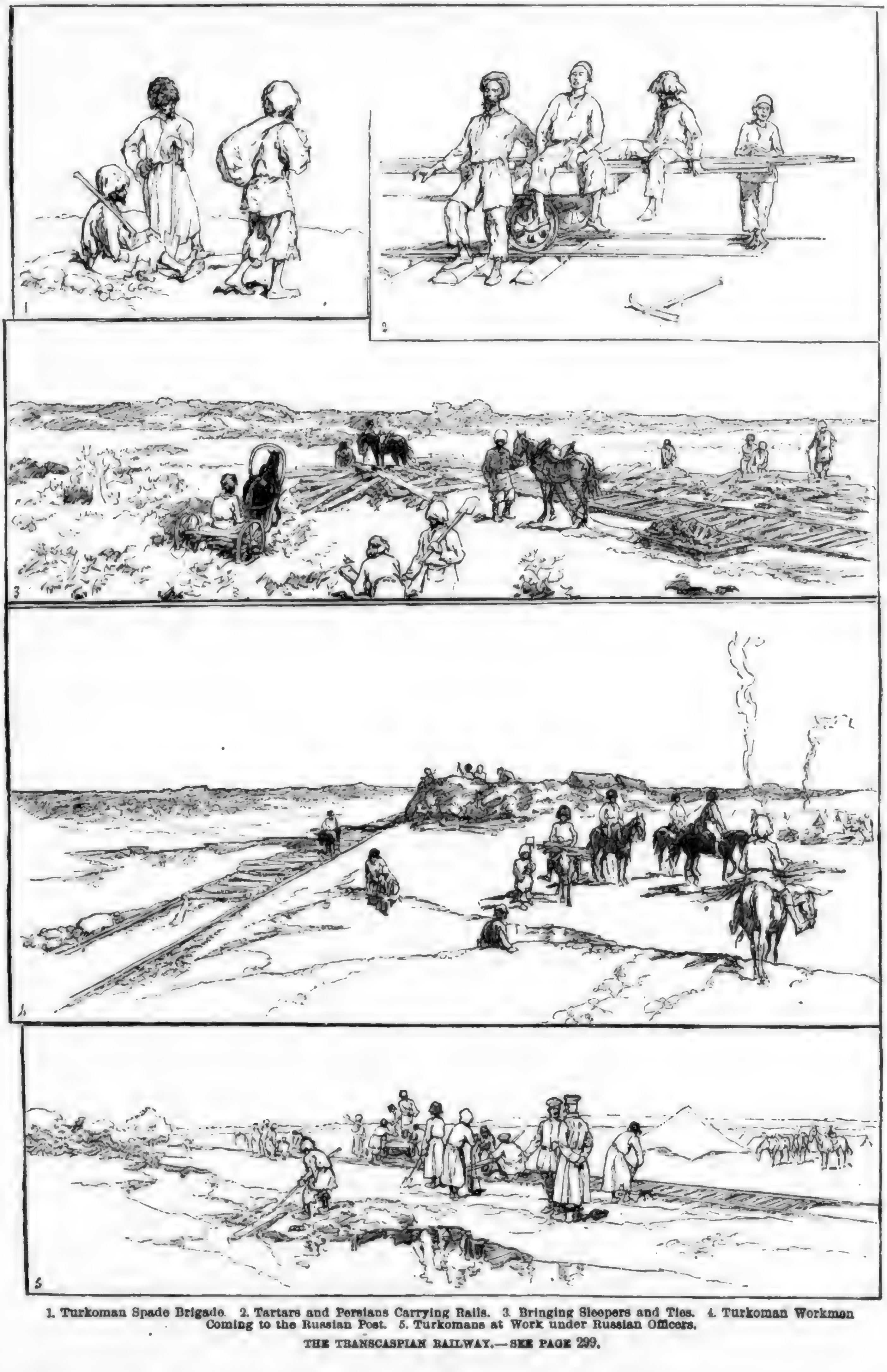
It would probably puzzle most people to give a complete list of the sovereign states of Europe. We don't mean to suggest that they would be likely to omit Montenegro, or Servia, or Belgium, or Greece, or even Monaco, with its 7,200 subjects. But there is Andorra. One is prone to overlook its 600 square miles, and 10,000 mountaineers. And there is San Marino, the sole survivor of the old and once numerous republics of Italy. It contains only about 90 square miles and 8,000 inhabitants; yet it is a military power, and has an army of 950 men, while its revenue amounts to nearly $23,000 a year. And there is the principality of Lichtenstein, between the Tyrol and Switzerland. There is only a very little of this charming country. The land measures but twelve or thirteen miles in length, and the proud nation that inhabits it consists of only 10,000 souls; but, such as it is, this little principality exists under the rule of his most transparent Highness John II.; and it is protected by intimate alliance with Austria. Still more restricted in extent is the republic of Moresnet, between Verviers, in Belgium, and Aix-la-Chapelle. Its dominion reaches over only four square miles, it possesses about 3,000 inhabitants, and its annual revenue amounts to less than $2,500. The national army consists of one soldier, who also acts as policeman.

During the forty-nine years of Her Majesty's reign, seventeen different Viceroys have occupied the Viceregal throne in Dublin Castle, some few of whom—Lord Eglington, Lord Carlisle, the Duke of Abercorn and Lord Spencer—have reigned twice. Lords Clarendon, St. Germans and Carlisle received visits from the sovereign during the renowned twelve days, out of the forty-nine years of her reign, which she has so happily devoted to winning the affections of the Irish people.

XUM



THE TRANSCASPIAN RAILWAY.—A TURKOMAN RAID, NEAR THE PERSIAN FRONTIER, BEFORE THE RUSSIAN CONQUEST.—SEE PAGE 299.



1. Turkoman Spade Brigade. 2. Tartars and Persians Carrying Rails. 3. Bringing Sleepers and Ties. 4. Turkoman Workmen Coming to the Russian Post. 5. Turkomans at Work under Russian Officers.

THE TRANSCASPIAN RAILWAY.—SEE PAGE 299.

XUM

"BONNY DUNDEE."

By G. A. Davis.

Oh, well they named him "bonny"! Here in his tarnished frame,
Across the gulf of silence he smiles, the gallant Graeme!
Faint are the faded colors, yet oh, how fair to see,
Even this little shadow of Claver'se of Dundee!

He smiles, with lip half mocking, a courtly curve and fine—
The brown mustache curls upward, to show its crimson line;
Over an iron corselet the chestnut locks are rolled,
And one long, floating lovelock shows just a gleam of gold.

And clear as sparkling mountain streams, and bright, the hazel
eyes
Only the lashes' shadow across their sunlight lies;
Far down their amber stillness look long—yet you shall see
No ghosts of memory haunting this image of Dundee!

Without, the misty August skies drip down a tender rain,
And glints of sunshine come and go across the window-pane;
The Tweed croons low its old, old song—a plaintive Border lay,
Where loves and hates of centuries gone sing softly on to-day.

And faint, yet clear, the murmurs rise to clash of hoofs and steel;
High o'er the roar of chanted psalms the Highland slogans peal;
Down go the Covenanting lines—they fight and fall and flee -
And o'er them rides, like Azrael, the conquering Dundee!

Red were the fields of Scotland--redder than heather's dye;
Red rolled the burns to meet the sea, where Claver'se trampled by!
The smoke of burning homes went up, with wail of wife and
maid,
Where stark and still the husbandman slept in his bloody plaid.

And curses rose with every prayer, in gorge and mountain glen,
Where the clatter of his horse's hoofs struck cold the hearts of
men;
The devil kept his own, they said—the black steed bore him free—
For lead could never reach the heart of Claver'se of Dundee!

He rode like Fate through all the land, he spurred to Edinbro
town,
Firm on the Stuart's head at last to fix the triple crown—
Far down the ancient Canongate his troops rode on behind,
And like the rush of breaking waves stormed down Leith's
narrow Wynd.

Sing low, O Tweed, your murmuring song, drip soft, O Summer
rain—
I hear the wailing pibrochs cry o'er Killiecrankie's slain!
The Highland yell of victory cleaves through roar of battle's tide,
And rings above the dying ranks that strew the Garry side.

And there rides Graeme of Claver'se, the dauntless chief and
high;
His sword drives death before, and leaves death where he
passes by!
Look out, look far and wide, brave eyes! the earth is fair to see—
But there's a silver bullet cast for Claver'se of Dundee!

The sun goes down all bloody red—on! for the last fierce charge!
The rain of blood, the clash of steel, the rattle of the targe
Speed on, above the warring hosts, O soul at last set free!
That shot rang true, and found the heart of Claver'se of Dundee!

Still, like a dream before our eyes, that misty Summer day,
We saw these phantoms come and go, as cloud-flung shadows
play;
We saw the gleam of corselets, the flutter of the plaid
Around the rallying standards, and the Stuart's white cockade!

The air was warm with heather scents, the gorse bloomed thick
with gold,
And brown and sparkling through the fields the storied river
rolled.
The glamour of the olden time o'er all the world seemed cast,
And wandering there, we hardly know the present from the
past.

O day so fair in memory! for us your sun stands still,
Above the Eildon's triple peak, o'er field and burn and hill;
Wind on, O Gala Water! flow, Tweed, to find the sea,
You brought us, in our dreams at least, "*one hour of Dundee*"!

Abbottsford, September 2d, 1882.

WISHING-WELLS.

In "Shropshire Folk Lore" occur the following stories about wishing-wells:

In a valley called "Sunny Gutter," near Ludlow—the scene, it is said, of the adventure immortalized in "Comus"—there is a wishing-well, into which you must drop a stone, and the wish you form at the moment will be fulfilled. At Rhosgoch, on the Long Mountain, in the Montgomeryshire portion of the Shropshire parish of Worthen, is a favorite wishing-well, which is "good for the eyes" besides. "One of my cottagers," writes Sir Offley Wakeman, "who lived close to the well for two years, tells me that the bottom was bright with pins—straight ones, he thinks—and that you could get whatever you wished for the moment the pin you threw in touched the bottom. 'It was mostly used for wishing about sweethearts.'" These wells have either lost, or never possessed, any tradition of either tutelar spirit or saintly patron. Not so our most famous wishing-well, I might say the most famous of all our wells—namely, St. Oswald's Well, just outside Oswestry, which, if I read its traditional history aright, has practically been the origin of that thriving and important market-town. In all probability this was a Pagan sacred spring, frequented long before his time, to whom it was afterward dedicated. The waters of "Oswald's Well" still flow freely at the foot of a woody bank in a field on the outskirts of Oswestry, next to that now used as the grammar-school playground.

In the year 1842 a local antiquary, the late Mr. F. M. Doyaston, wrote that "the feeble and infirm still believe and bathe in the well, and did more so until it was inclosed in the noisy school playground. Bottles of water are carried to wash the eyes of those who are dim or short-sighted, or the tardy or erring legs of such as are of weak understandings." Nowadays it seems chiefly to be used as a wishing-well, and many are the ceremonies prescribed for attaining the heart's desire thereby. One rite is to go to the well at midnight, to take some of the water up in the hand and drink part of it, at the same time forming the wish in the mind. The rest of the water in the hand must then be thrown upon a particular stone at the back of the well, where the schoolboys think that King Oswald's head was buried, and where formerly a carved head wearing a crown projected from the wall. If the votary can succeed in throwing all the water left in his hand upon this stone, without touching any other spot, his wish will be fulfilled. Whatever ceremony be practiced, the wish, of course, must be divulged to no one. A young girl at Oswestry, about three years ago, obtained the wish which she had breathed into a small hole in the keystone of the arch over the well. Another approved plan is to bathe the face in the water and wish while doing so; or, more elaborately, to throw a stone upon a certain green spot at the bottom of the well, which will cause a jet of water to spout up in the air. Under this the votary must put his head and wish, and the wish will be fulfilled in the course of one or two days. Another plan savors of divination; it is to search among the beech trees near the well for an empty beechnut-husk, which can be imagined to bear some sort of likeness to a human face, and to throw this into the water with the face uppermost. If it swims while the diviner counts twenty, the wish will be fulfilled, but not otherwise.

THE TRANSCASPIAN RAILWAY.

RUSSIA'S GREAT STRATEGIC LINE IN CENTRAL ASIA.

The year 1886 witnessed the quiet consummation of an enterprise which, in the boldness of its conception and the importance of its results, both political and commercial, may be fairly ranked with the ocean telegraph-cables, the Suez Canal, and the Pacific Railroad. This marvelous enterprise is the Russian Transcaspian Railway, which reached Merv in July last, and had crossed the Oxus ere the beginning of the present Winter. Geok Tepé, which Skobeleff stormed only half-a-dozen years since, is a way station on this line, and trains pass daily over the desert penetrated by the adventurous O'Donovan, in his famous ride to Merv. Ere long the locomotive will invade ancient Bokhara, steam past the tomb of Tamerlane at Samarcand, and bring up at the gates of Tashkend, the commercial centre of Turkestan. Russia will thus be enabled to flank Candahar on the one hand, while on the other, the steamboats on the Oxus already connect the railroad with Khiva and the Aral Sea. Her strategic base is shifted to Transcaspia, and she is to-day practically mistress of Herat, which she could occupy with troops from the Caucasus in a fortnight less time than the English could from India, and with troops from Odessa in six weeks' less time than could possibly be done from England.

When the Russian Government sanctioned the completion of the Transcaucasian Railway, in 1879, there was probably no idea of constructing an extension beyond the Caspian in the direction of Askabad and Herat. The aim was rather at striking south of Tiflis to the Persian city of Tabriz; and, during 1880, railway engineers actually surveyed the country to Djulfa, on the Persian frontier, a point 284 miles from Tiflis, 85 from Tabriz, and 459 from Teheran. There was, also, talk of a railway to Kars, in Armenia.

The original project of the Transcaspian Railway appears to have arisen out of Lomakin's defeat at Geok Tepé, in September, 1879; and but for that disaster, it is doubtful if the present line would ever have been constructed. But the power of Russia in Central Asia was shaken, rendering a campaign of retaliation unavoidable. The principal difficulty of the second expedition lay in the extreme scarcity of transport animals east of the Caspian, to convey the stores of the survey across the tract of desert lying between the coast and the oasis of Akhal. To overcome this, a service of traction-engines and *fourgons* was projected by General Petroosevitch, and, later on, the construction of a tramway between Tchikishlar and the edge of the Tekke oasis was mooted; but neither scheme received encouragement at St. Petersburg, and both were abandoned when Skobeleff decided against Tchikishlar as a base.

In proceeding to the Caspian to assume the command of the Turkoman expedition, Skobeleff took with him General Annenkoff, the Controller of Russian Military Transport. Annenkoff was a brilliant and honored officer, forty-five years of age. The son of wealthy and aristocratic parents, he had already passed through a varied military and administrative career. He had been intrusted, in 1877, with the transport arrangements for invading Turkey. At the close of the war he was appointed vice-president of the special commission instituted to report upon the reorganization of Russian railways, and was still actively engaged on this duty when the Government ordered him to the Caspian to supervise the transport of Skobeleff's expedition.

Krasnovodsk, on the southeastern coast of the Caspian, was selected for the base of operations; and Annenkoff at once suggested the construction of a railway from the Caspian coast to the Tekke oasis, at Kizil Arvat. The Russian Government had lying idle at Bender 100 miles of line, purchased and stored in 1878, in anticipation of a continuance of the war in the Balkan Peninsula; and Annenkoff urged that this material should be shifted to the Caspian and employed in the railway's construction.

The line was thus from the beginning entirely the project of Annenkoff. Moreover, from what he saw of the Turkoman region during the war, he speedily arrived at the conclusion—and in this he was subsequently supported by the engineers employed on the undertaking—that it would be feasible to continue the line to India. He was well aware that, in a very short time, the completion of a link in the Caucasus would give St. Petersburg direct railway communication, *viâ* Odessa, Poti, Baku, and Michaelovsk, with Kizil Arvat, in Central Asia; and, in order to enable Russia to tap the overland trade of India, he advocated the extension of his Transcaspian line through Sarakhs, Herat and Candahar, to the commencement of the Indian railway system at the mouth of Bolan Pass. Notwithstanding a painful wound which he received during a reconnaissance of Geok Tepé, and which necessitated his return home, he persisted in his scheme, and set on foot those surveys of Sarakhs and Herat by Lessar, then an engineer of his department, which subsequently raised such a flutter in England. In his pamphlet upon the "Akhal Tekke Oasis and Roads to India," which has been translated into English by Marvin, Annenkoff gives an interesting account of his scheme, together with his estimate of British power in India. Besides a knowledge of England and the English language, derived from several visits to that country, he undoubtedly possesses a more extensive acquaintance with Central Asia and its relations to India than any other Russian general.

But to return to our beginning. The Russian Government agreed to Annenkoff's proposition of a railway from the Caspian to Kizil Arvat, although Skobeleff did not give it enthusiastic support. In many influential circles in St. Petersburg, indeed, it was openly ridiculed. Annenkoff went to work with a will, in spite of the disparaging criticism of experts. Some of these asserted that the first sand-storm would bury the line. But experience proved that the sand could blow off as well as

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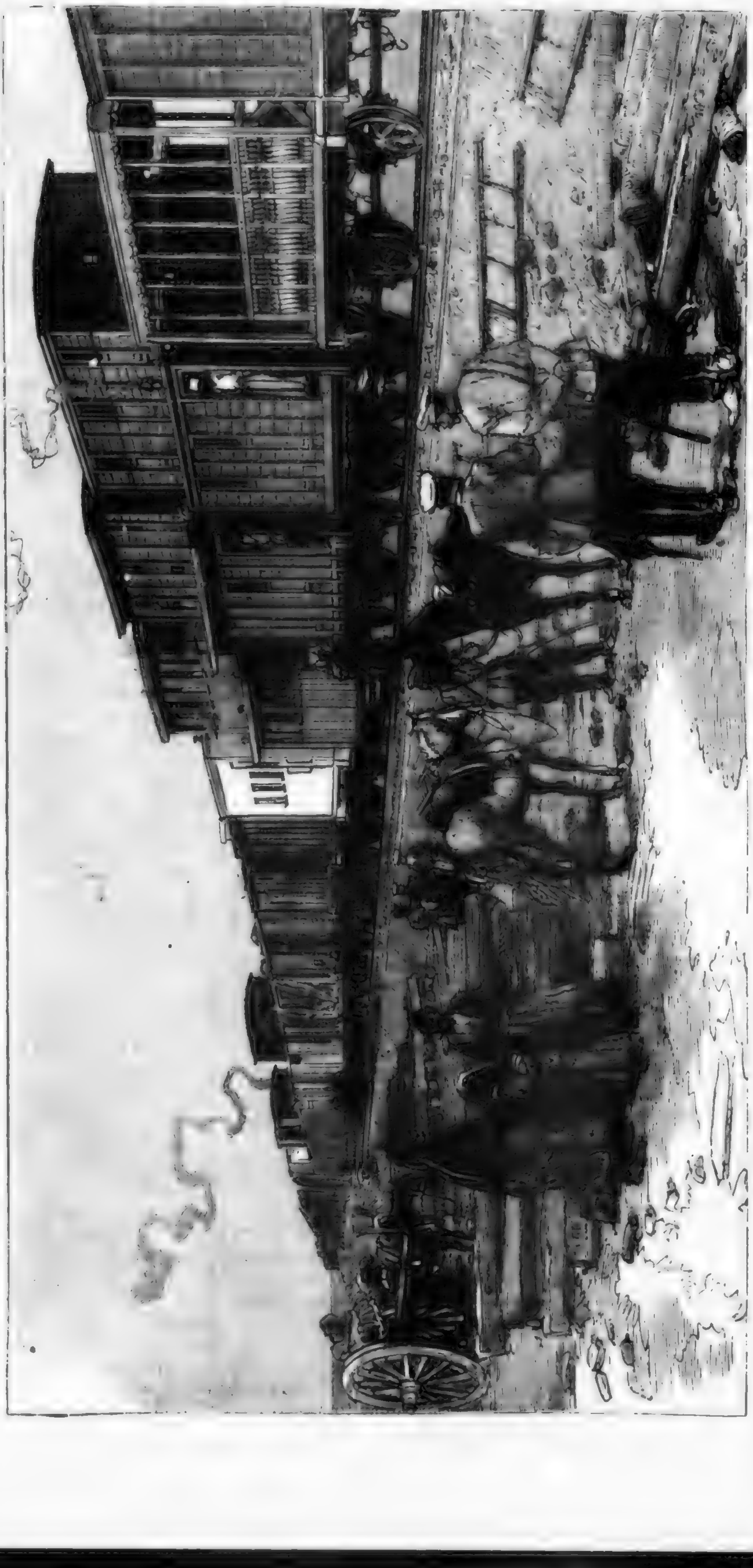
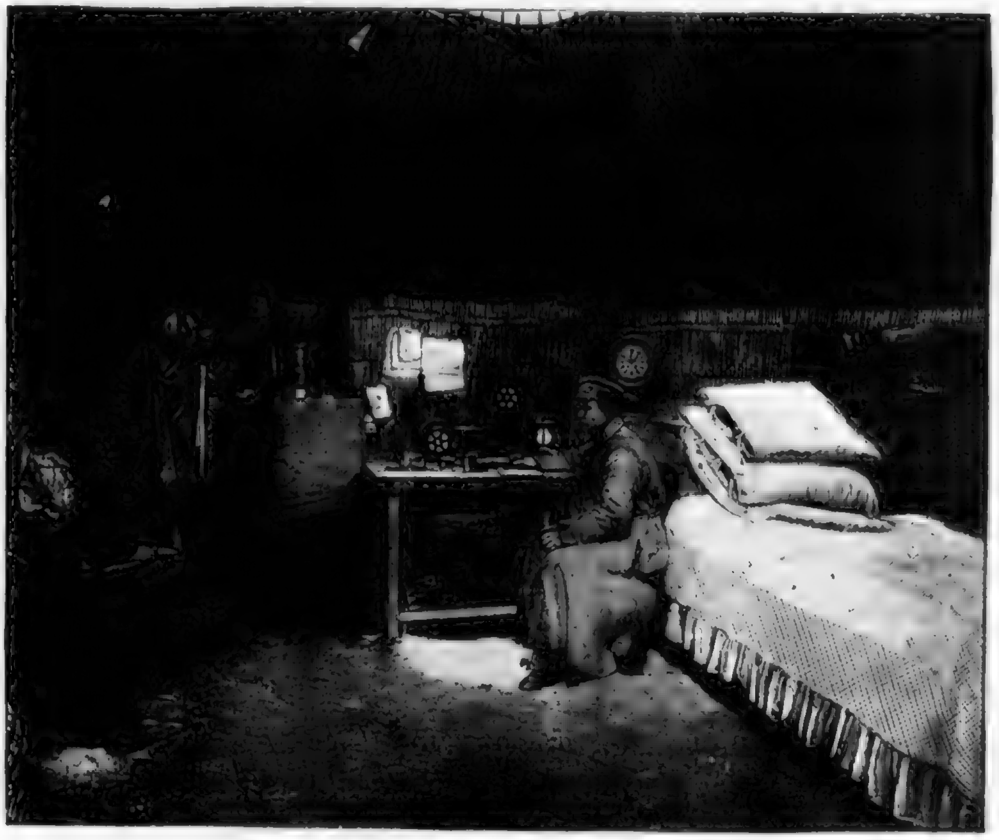


CONSTRUCTION-TRAIN IN THE DESERT.

blow on the rails; and the traffic has never yet been interfered with by the shifting sands, notwithstanding the numerous storms that have tested the matter. The croakers then said that the periodical inundations of the Transcaspian coast would wash away the line; but this has not yet happened, for Annenkoff built his embankments so strongly, and protected them so well, that the severest inundations have scarcely injured it at all. Perhaps it was these dangers that induced Annenkoff to build the railway more substantially than had been originally intended. At any rate, it soon threw off its character of a "temporary military railway," and developed into a five-foot broad-gauge line, as substantially built as any in Russia.

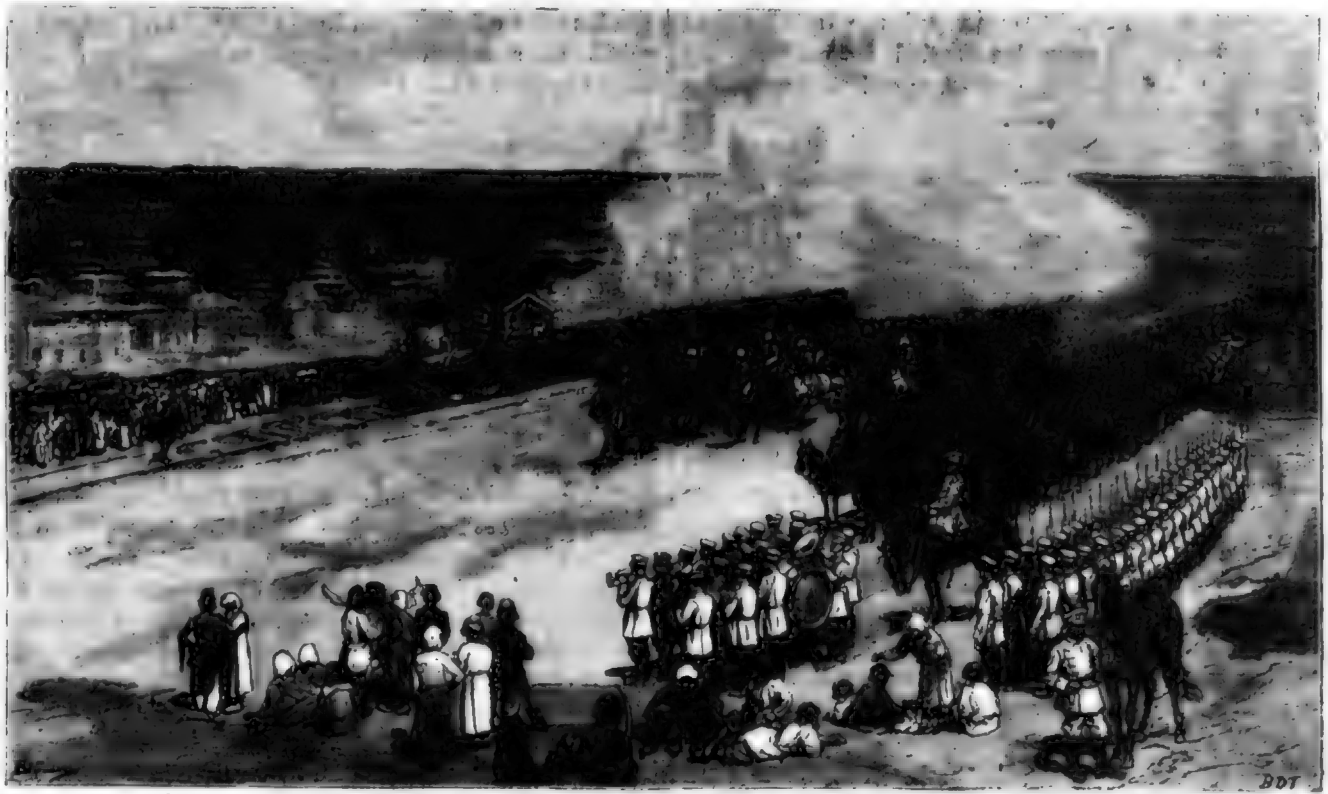
If the railway did not render material assistance to Skobeleff's expedition, it at once justified its construction by powerfully increasing Russia's influence in Central Asia. Annenkoff's article on the "Roads to India" appeared before his railway was finished, and when doubts existed whether it would survive the campaign. With the fall of Geok Tepé and the occupation of Askabad, the *raison d'être* for the railway seemed—to its opponents, at least—to have disappeared. The Russian Government, nevertheless, steadily continued the construction of the line, and carried it on in due course to the terminus fixed upon—Kizil Arvat. This original Transcaspian Railway, from Michaelovsk to Kizil Arvat, was 217 versts or 144 miles long, and cost $22,500 a mile, or $3,240,000 to construct. When this was accomplished, and traffic opened throughout, Annenkoff may be said to have won



INTERIOR OF A KIBITKA TELEGRAPHIC POST.

the approval of the Government for his Indian scheme. Had the desert section of the line never been constructed, it may be doubted if Russia would have taken in hand the larger project, for the present, at any rate. But when the desert was traversed, and the country beyond found to be flat and fertile, and easily traversed by a railway, the notion of threatening British influence in the East by extending the line to within striking distance of Herat could not but prove irresistibly tempting to a Government which has always been singularly open to the reception of great ideas. Russia realized that the Transcaspian Railway was something more than a mere military line, beginning and ending nowhere, and intended only for the local transport of troops. It was seen that once the Transcaucasian Railway from Batoum to Baku was completed, the Michaelovsk-Kizil-Arvat or Transcaspian line would naturally fall into its place as a logical extension of the Russian railway system, and that it would prove a better route to Turkestan than the road from Orenburg to Tashkend, in the event of the long-projected Central Asian Railway ever being carried into effect. People began to recognize the credit due to Annenkoff for having given a solid character to a railway which the Russian Government itself had originally intended to be only of a temporary character, and which even such a brilliant and far-seeing man as Skobeleff had treated with inadequate appreciation.

Moreover, the moment the railway reached Kizil Arvat it began to be employed in transporting merchandise, arrangements being made for the dispatch of caravans to it from the east, north and south. The Khiva and Bokhara caravans, which had formerly proceeded along the Oxus to its mouth, and then *viâ* the Ust-Urt and Kazala to Orenburg, now took a new route from the Oxus to the railway terminus—a route which to-day may be traversed entirely by rail. The distance between Khiva and Orenburg is 863 miles, occupying forty-three days to traverse



ARRIVAL OF THE FIRST TRAIN AT MERV, JULY 14TH, 1886.

with camels. The distance from Khiva to Kizil Arvat, on the other hand, is but 316 miles, and could be traversed by caravans in fifteen or sixteen days, before the recent extension of the railway through to the Oxus, and the steamboats on that stream, reduced the time to something like sixty hours. The Persian trade-route from Nishapur to Astrabad, near the Caspian coast, was to a large extent diverted *viâ* Kelat and Bami to Kizil Arvat, in order to replace the 200 miles of camel road by the use of the railway. And, lastly, the Afghan trade-route, commencing at Candahar and running through Herat, Sarakhs, Askabad and Bami to Kizil Arvat, which in modern times had been blocked by the raids of the Turkomans, was reopened by the march of Russian enterprise.

Already, before the completion of the line to Kizil Arvat, Annenkoff had sent engineers to survey the country from Kizil Arvat to Askabad. When this survey demonstrated the feasibility of a railway extension to Askabad, he sent the surveyors on to Sarakhs, and finally to within a short distance of Herat. But for the excitement provoked in England by Lessar's movements, the survey might have been continued to India itself. The survey of this remaining section, however, was postponed; but additional surveys were made in the direction of the Khiva and the Amu Daria (Oxus). Turkestan had been fed for years with hopes of being one day joined to Russia by a railway. The projected line to Sarakhs and India left her out in the cold. This was not agreeable to Tchernayeff and other founders of modern Turkestan; and, in consequence of the pressure they brought to bear upon the Russian Government, Lieutenant Bweestrjinsky was dispatched to Transcaspia early in 1882 to effect a survey for a line from Kizil Arvat to Khiva—the idea at that time being to continue the communication thence by steamer up the Oxus, and, perhaps, lay down another line of rails through Bokhara to Tashkend. The route taken by Bweestrjinsky from Kizil Arvat to Khiva was through a country of desert character, ill-provided with water, possessing no fuel, and requiring, at places, considerable levelings and excavations. The total distance was 475 versts (315 miles). Marvin, in his book on "The Russians at Merv and Herat," published in 1883, expressed the opinion that this project would never be carried into effect, and predicted that a railway to the Oxus *viâ* Merv stood a better chance of being constructed than one *viâ* Khiva. The surveys of Alikhanoff and Lessar had shown conclusively that, with a little management of the irrigation system of Turkmenia, the Akhal, the Tejend and the Merv oases might be joined together, so that a railway would have to transverse only the 150 miles of desert intervening between Merv and Chardjui on the Oxus. Before three years elapsed, the predictions of the astute and vigilant young English writer were verified. The first train entered Merv last July, and the iron bridge across the Oxus at Chardjui was completed in October.

A battalion of Russian military engineers and laborers was formed at Moscow in the Spring of 1885. It was dispatched to Transcaspia on the 13th of June, arrived at Kizil Arvat July 3d, and ten days later a force of 1,000 men, under the personal direction of General Annenkoff, took up the work of constructing the railway where it had been left off some four years before. For the lodgings of his men, on the inhospitable Turkoman steppes, where glacial cold and scorching heat are the alternate characteristics of the climate, Annenkoff provided a train of immense dwelling-cars, two stories high, comfortably fitted up and warmed with stoves, forming a veritable camp on wheels. Dormitories, officers' headquarters, storehouses, kitchens and mess-rooms—all had their places in this great rolling camp, which advanced day by day over the newly laid rails. The work of grading was done mostly by Tartars of the Caucasus, Turkomans, and Persians. These were followed up by the military railroad-builders, who laid the ties and rails brought along by the construction-trains. Russian mujiks ran these trains, and did most of the wood work. It was most curious to see the Turkomans, with shovels thrust in their girdles instead of scimetars, coming on horseback to work under the direction of the Russians, who, in less than five years, have tamed these fierce nomads of the steppes and transformed their raiding-ground into a peaceful province of the Caucasus.

At intervals along the completed portion of the line stations of surveillance were established, and left in charge of an officer. For this purpose, a *kibitka*, or dome-shaped Turkoman tent, would be fitted up, in a semi-warlike, semi-scientific fashion, clean and cozy withal, and connected by telegraph with the moving camp of the construction party. It was like a boat in mid-ocean—the wild desert extending to the horizon on all sides, the two ribbons of iron its only visible connection with the inhabited and civilized world.

The result of Annenkoff's excellent organization, and the energy with which he infused his command, was that the entire distance of 535 versts, or 355 miles, between Kizil Arvat and Merv were spanned by the iron road in thirteen months. At the same time the western terminus was removed from Michaelovsk to Novi Golfe, a military station with a good harbor, fifteen miles north of the former, and separated from Krasnovodsk by an arm of the Caspian Sea.

The first train arrived at Merv on the 14th of July, 1886. M. Gabriel Bonvalot, a French scientific missionary in Central Asia, describes the picturesque festivities attending this event in a letter to the *Monde Illustré*. The Turkoman laborers had no sooner laid the rails as far as the Merv station, than the train, gayly decorated with the Russian colors, steamed up, escorted by troops of Turkoman horsemen. A regiment of Cossacks and the corps of engineers, drawn up in parade order, received the Russian officials with loud cheers, in which the thousands of assembled Turkomans joined. An artillery salute pealed forth as the train drew up at the station. All the buildings of Merv were decorated, and the day was given over to rejoicings.

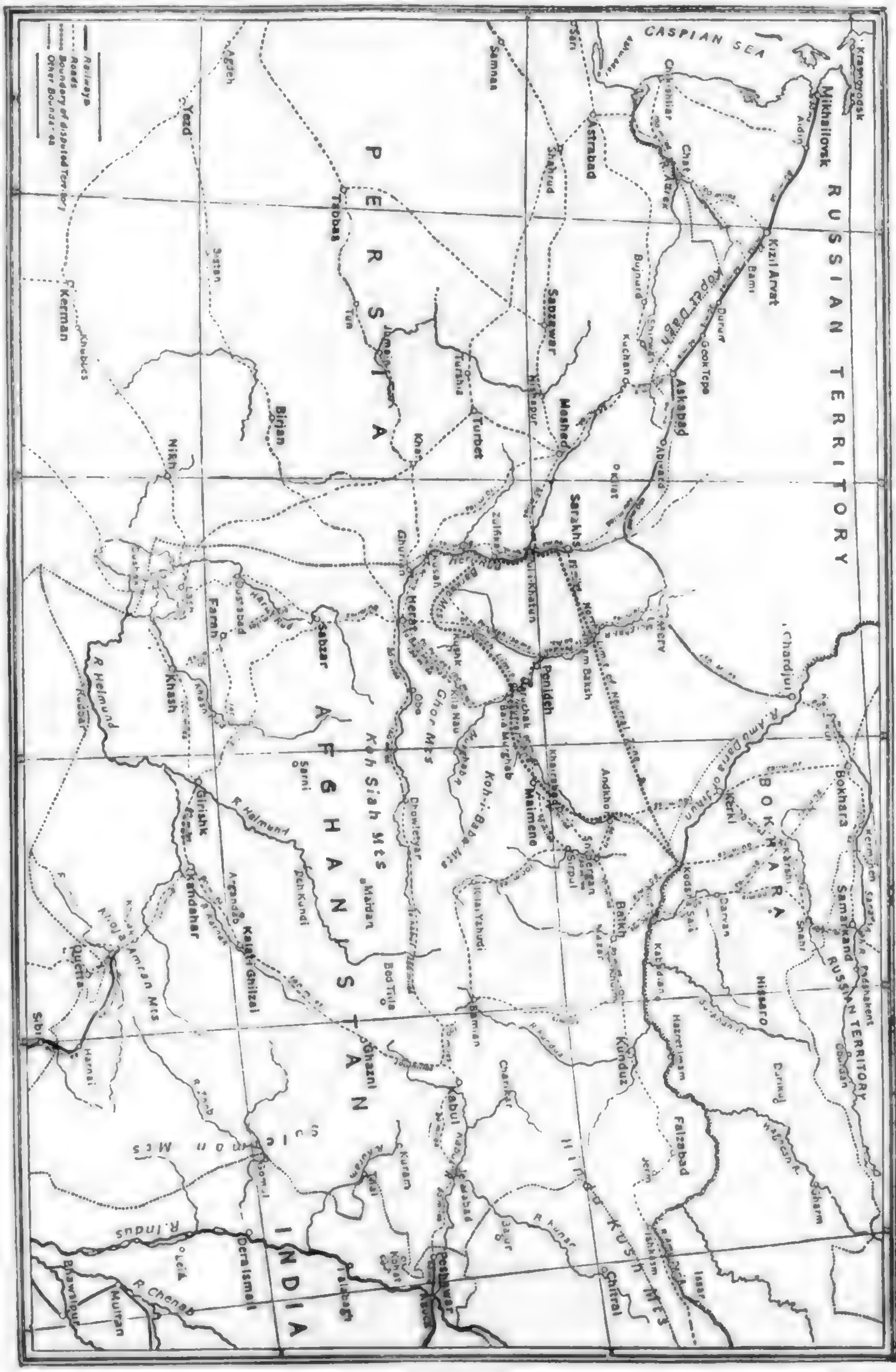
Merv, "the Queen of the World," has been considerably Europeanized since O'Donovan penned his picturesque description. Its situation is indeed superb, in the midst of the oasis watered by the Murghab, and whose fertility equals that of the Nile Valley. The gorgeous tulip grows here in its natural state; and every Spring the plains around Merv are covered with flowers whose perfume weights the air, and whose varied tints furnish, it is said, the designs of those brilliant carpets which the Tekke women weave. When M. Bonvalot arrived at Merv, *viâ* Persia and Afghanistan, a few days before the celebration, the irrigation channels were filled with water, and the Murghab was overflowing its banks. Approaching the city, which was almost hidden by trees, he found men at work building a brick wall around it. Carriages, and people on horseback and on foot, were moving about in all directions amidst clouds of dust. The scene was most animated and exciting, after the stillness of the desert.

When the Russians first took up their quarters in Merv, the natives, as well as the Jews and Armenians acquainted with the locality, advised them to erect their new town on the right bank of the river, where the site would be protected from floods. Disregarding this advice, they began to build on the left bank. In May last the river rose, overflowed its banks, and swept away all the newly erected buildings within a hundred yards of the left side of the stream. In July, many of the streets around the town were still filled with water, and a smell of stagnant marshes filled the air. The new town consists of two parallel streets running east and west. The building of the southern streets had been interrupted by the floods. The population of the quarter had risen to about 3,000, composed of Russian officers and employés, Armenian merchants, and workmen of all nationalities, attracted there by the railway. Most of the houses are one-story structures of brick; but larger buildings are at present in course of construction toward the western part of the town.

Concerning the work on that part of the line traversing the black sands of the Kara-Kum Desert between Merv and Chardjui on the Oxus, a distance of 200 miles, we have no details; but its completion was announced by telegraph some weeks ago. Eighty-five miles more will bring the railway to Bokhara, and 265 thence to Tashkend, the great Eastern goal of commerce. To the south, the short extension of the line from Kaaka to Sarakhs, on the Perso-Afghan frontier, will bring the Russian railway to within 200 miles of Herat.

While Russia has thus advanced toward India with tremendous strides, England is no nearer to her Asian Empire than she was fifteen years ago. Her sea communication with it cannot be improved. To keep pace with Russia, in Central Asia, she must have a railroad there. But the Euphrates Valley line, after a quarter of a century of discussion, is still a project; and the Quetta Railway, which Indian opinion is now in favor of pushing on to Candahar, is 469 miles from Herat, with far greater obstacles before it than the Russians have to encounter in their northern approach.

The most conservative of Englishmen can no longer remain blind to the significance of this enterprise; and opinions on the subject have greatly altered since 1876, when Lord Beaconsfield declared: "Far from being alarmed at the progress of Russia in Central Asia, I see no reason why Russia should not complete the conquest of Turkestan just as England has conquered India." Comparatively few Englishmen, even up to the present time, have admitted that Russia's advance menaces British domination in India. But now they begin to fear, to use the recent words of an English officer writing to the *Nation*, that Russia "looks to this rich land (India) as an ultimate compensation for the capital she is investing in the conquest of the sterile uplands of



CASPIAN SEA
RUSSIAN TERRITORY
PERSIA
AFGHANISTAN
BOKHARA
INDIA
Railways
Roads
Mikhailovsk
Krasnovodsk
Kizil Arvat
Askabad
Astrabad
Meshed
Sarakhs
Merv
Chardjui
Bokhara
Samarkand
Penjdeh
Herat
Maimene
Balkh
Kunduz
Faizabad
Koh Siah Mts
Kabul
Ghazni
Kandahar
Quetta
Girishk
Farah
Kerman
Yezd
Tabbas
Sabzawar
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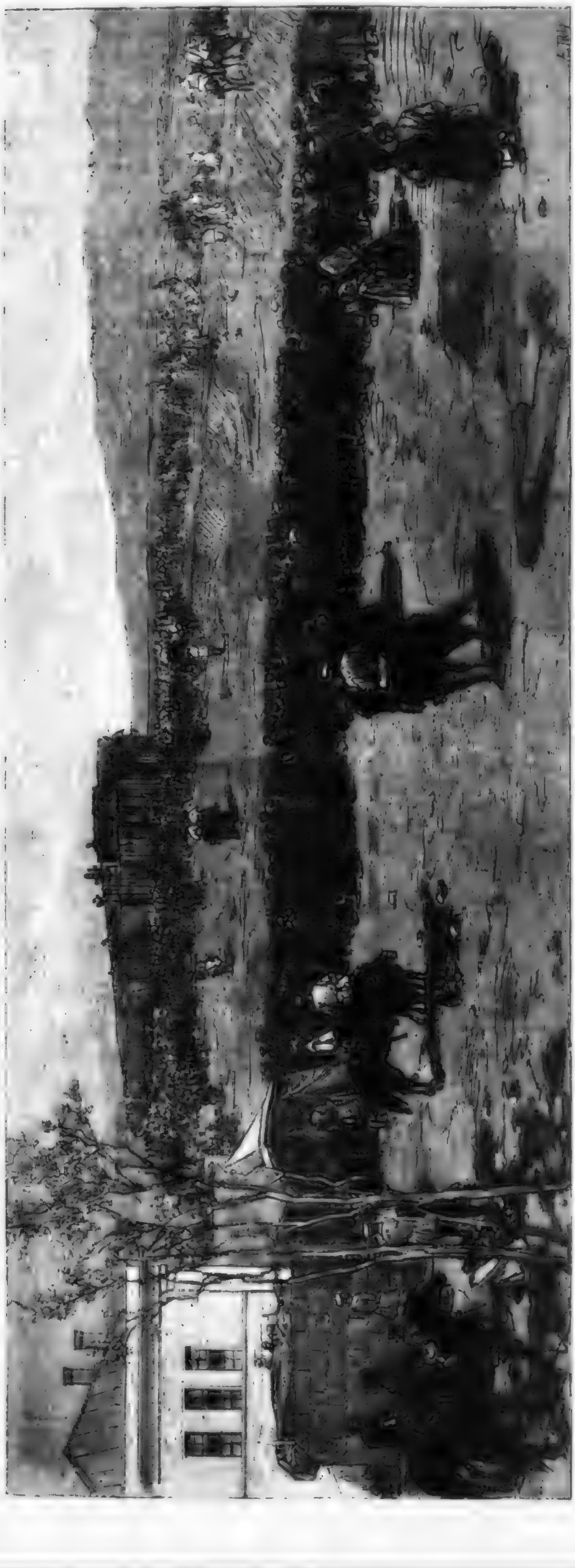
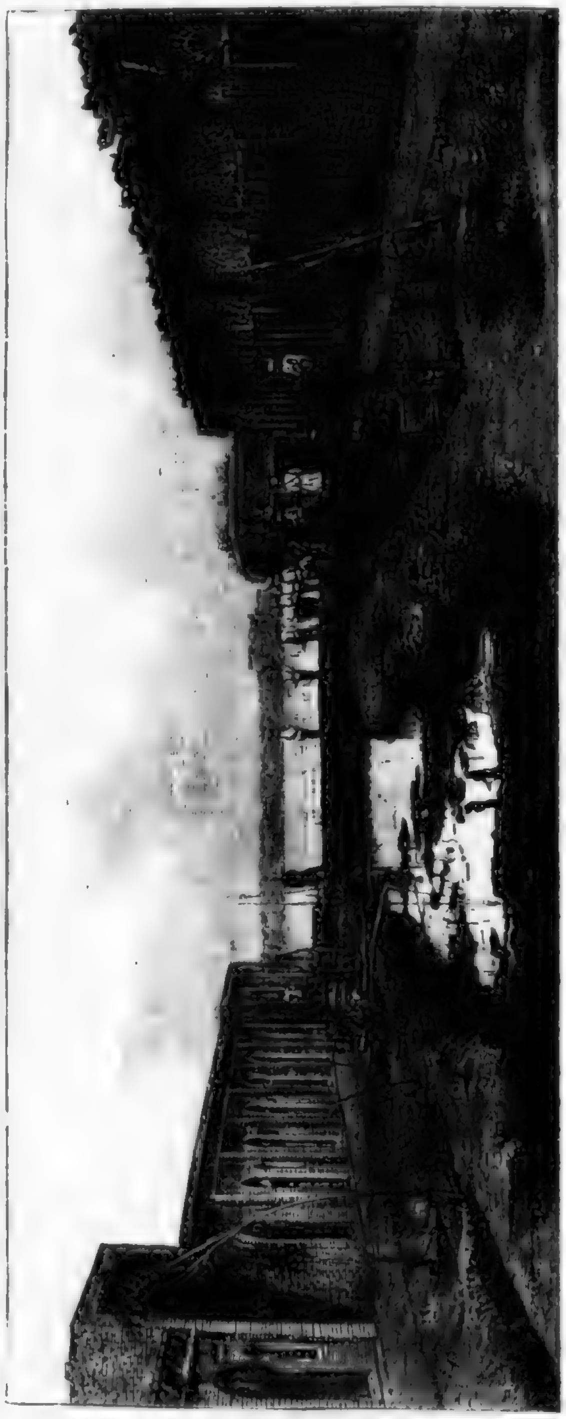
Hindu Kush Mts

MAP OF THE TRANSCASPIAN REGION, SHOWING ITS GEOGRAPHICAL RELATIONS TO INDIA.

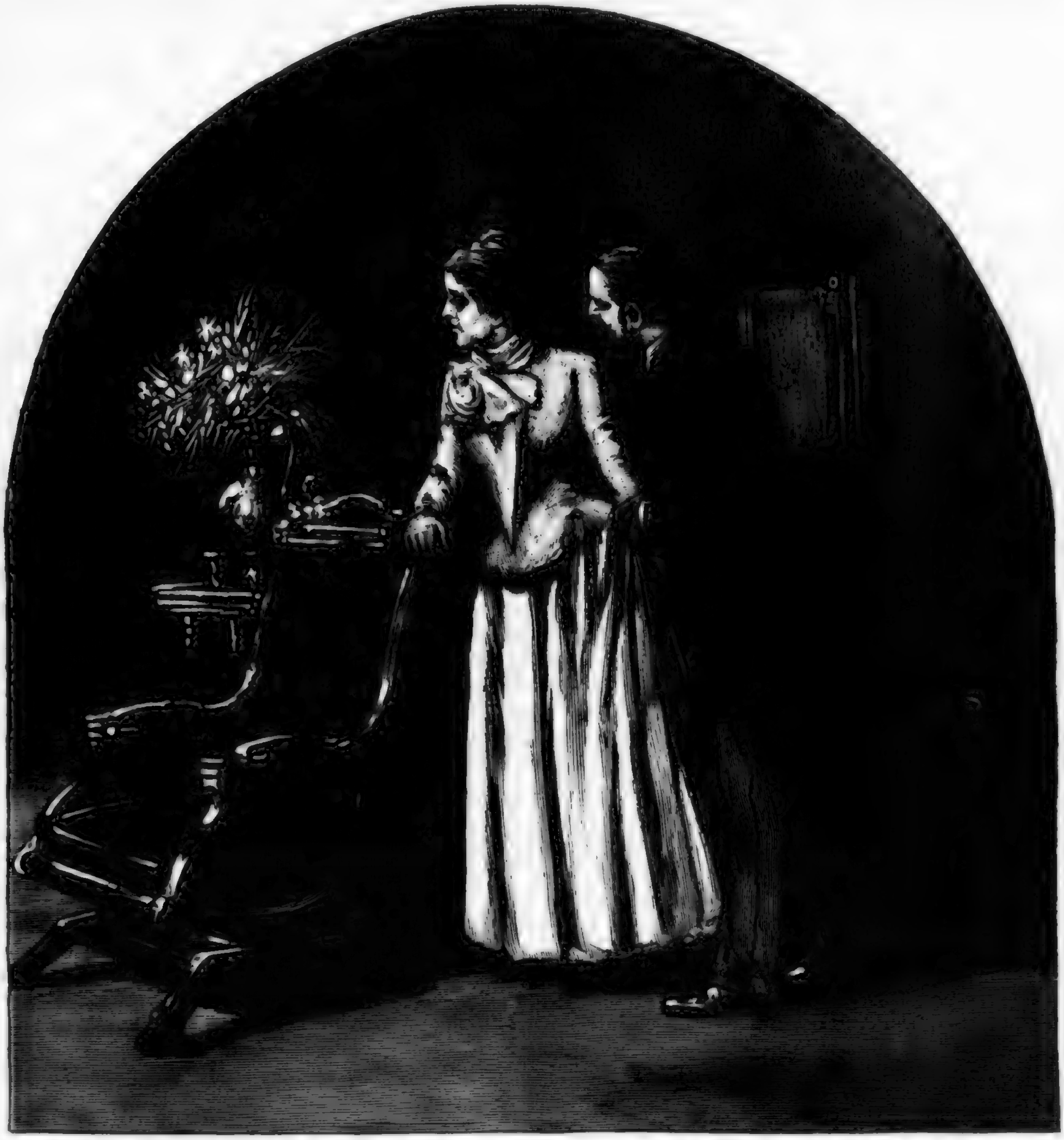


INAUGURATION OF THE STATION AT MERV.

Central Asia." Although in the recent European complications, Russia's doings in Central Asia have been temporarily obscured from the sight of the world, she has, since the retreat of Sir Peter Lumsden's superfluous Boundary Commission, gone on extending her base of operations toward Afghanistan as energetically as ever. Her present position, flanking as she does by railroad the unsettled provinces north of Kabul and Cashmere, renders speculation easy as to where an attack will be made the next time Russia and England come to open quarrel in Asia. Within the past few weeks, European dispatches have reported the adoption by the Russian Government of a scheme for the occupation of Central Asia as far as the Hindu Kush Mountains, taking in Herat. All this is but a question of time, which may prove unexpectedly brief.



STREET IN MERV.



HER FATHER'S SECRETARY.—"HER EYES AND HER FACE WERE TURNED FROM HIM. HE COULD SEE HER NECK, CRIMSONED WITH A BURNING BLUSH; HE COULD FEEL HER HANDS TWISTING IN HIS GRASP."

HER FATHER'S SECRETARY.

By Madeline S. Bridges.

Lilian Crystal was that rare and notable product of the nineteenth century, an American girl who had gone to England and come back—an American. She was further remarkable, being a beauty and an heiress, for returning unmarried; and now, at barely twenty-four, was beginning to eschew society and devote herself to books.

"In joining contrasts lieth love's delight," the poet tells us; consequently, Lilian's dearest friend and *confidante*, Clara Welles, went out five evenings in the week, never read a page of anything, and would rather be mistaken for an Englishwoman than an angel. She was thirty-two, and went skipping through life like a schoolgirl of sixteen. Just at present she had come from Newport, rushing in with the strength and freshness of the ocean breeze itself, and had settled down for a quiet week or two in Lilian's beautiful home on the Hudson. The family consisted of Colonel Crystal, his daughter Lilian, his secretary, Howard Russell, and a house full of servants. And here Miss Welles had staid her footsteps "to take breath," she said. Her manner of taking it appeared to consist in talking incessantly. She was *un camarade* with all the world, and in this respect also differed greatly from her friend Miss Crystal.

"I had just a lovely talk with Mr. Russell, Lilian," she announced, delightedly, a day or two after her arrival. The young ladies were enjoying the quiet sunset hour on the broad veranda, one in white and one in mauve, and both wielding the large fans of Fashion's dictate. "All the time you were asleep he sat and talked with me, and we got acquainted so beautifully! I don't see how any one can help liking him."

Lilian arched her eyebrows.

"Well, I don't," persisted Clara, seriously. "He is

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so bright and kind; he is wonderfully kind to *you*—just like a big, strong, affectionate brother, and he never seems to mind your impertinence a bit."

"My dear Clara!"

"He is, too! I don't care, I *like* him, and we had a lovely time. He told me lots about himself; at least, not about *himself*, but his love story slipped out, and then I questioned him and made him tell."

"His love story!" echoed Lilian, in an odd sort of surprise, which she instantly modified by a tone of indifference. "He has a love story, then? He seems so utterly content with himself, I should never imagine him in the character of a heart-broken swain."

"Heart-broken? Not a bit of it. Indeed, no! He is very hopeful and happy, and very, very much in love!"

"Ah!" Lilian was quite absorbed for a second or two arranging the roses at her waist. "Then it would seem to be a prosperous affair, and—mutual."

"Entirely mutual. He met her first five years ago, when he was only twenty, and has been faithful ever since. But fancy his being only twenty-five now! I imagined he was thirty at least. The young lady is younger. He showed me a curl of her hair; he wears it in that heavy gold locket on his watchchain."

"Do you think that was a gentlemanly thing to do?"

"What? Wear her hair? Oh, show it to me, you mean. *I* think it was gentlemanly, because he would not mention her name, and only said how dearly he loved her, and how good and beautiful she was. He is working his way toward her in hope and patience, but does not know when they can be married. He left her in England nearly five years ago, but he seems quite sure of her and of himself; and, oh, I did think his frankness was something just delightful. Every way I find him pleasant and charming! Do tell me, Lilian, why it is that you dislike him so."

"I suppose it must be because he is an Englishman," she answered, coolly. "I got so tired of them when I was over there! They all look alike; they talk alike; they wear the same sort of clothes; they act, precisely, one like another. It seemed so strange to see no variety—no individuality! And all the children are made after one pattern, too. Lord Elton's growing family and Sir Dilby Wilkes's children, I could scarcely tell them apart, though I saw them almost daily when I staid at Lady Arden's. Mr. Russell is to me simply *intolerably* English."

"I should blush to acknowledge such prejudice," said Clara, loftily.

"Well, I have another feeling, too." She hesitated a little. "I may wrong him, but Mr. Russell impresses me with the idea that he is acting a part. I think we do not know him as he really is—there is something mysterious——"

"He is coming up the walk now," said Miss Welles, calmly.

"Of all things in the world!" Lilian made a quick movement as if to rise. "Can I escape, Clara? Is there time?"

"Well, he'll see your ignominious retreat. I wouldn't, if I were you! And it's dreadful, Lilian. You should not permit yourself such feelings, and especially toward a person who has never injured you."

"Please allow me my mental freedom," said Lilian, impatiently. "I hate Mr. Russell, that's all, and if I didn't hate him, I would detest him. Now do you understand?"

"Probably as well as you do," said Clara, with a curious smile. "But prejudice apart, isn't he handsome? Isn't he manly? Now you will see him throw his cigar away; he is smoking it up to the last minute, but—— There it goes! Oh, you needn't have sacrificed your cigar, Mr. Russell. I am so fond of the scent of tobacco, and so is Lilian."

Lilian had given but a very slight nod of recognition to the newcomer, who displaced his hat with prompt courtesy, and sat down on one of the lower steps of the veranda, looking up brightly at the two pretty faces above him.

"Oh, but here's a chair!" Miss Welles made haste to say. "Come up higher. I don't like to see you in such a lowly position."

"I am but as my fortunes are," was the smiling reply. "Besides, however much I may be looked down on, Miss Welles, I find it always delightful to look up, and as a natural consequence, in the present instance, to adore."

"Oh," said Clara, with a prolonged intonation, "Miss Crystal and I are wondering which one of us ought to appropriate the adoration. It would never do to divide it, you know."

"You are very welcome to my share," returned Lilian, with contemptuous indifference. "I certainly have no wish to retain it."

"But then, don't you see, Miss Crystal, that is the beauty of adoration," Mr. Russell observed, calmly. "It goes where it is sent, quite independent of reception. That's why I find it such a luxury, because it doesn't require any foundation in reason. It's so delightfully untenable! I believe with the fellow in Tennyson, that,

'To admire, and not to desire, if a man could attain it,
were more
Than to walk all day, like the sultan of old, in a garden
of spice.'

I actually can do that. I can admire things that—well, that would bore me to death if I really possessed them. I dare say, Miss Crystal would never give me credit for that sort of mental equilibrium."

"I beg your pardon," she said, looking at him full, with bland impatience. "Did you speak to me."

"I think I mentioned your name," he spoke, with equal blandness. "But, really, the remark isn't worth repeating."

"I quite agree with you," was the scornful reply. "But Tennyson, perhaps, is worth quoting correctly."

"Didn't I? Well, really now, I beg his pardon, and yours. That *is* a shame! Thanks, very much, for your interest, though. I scarcely hoped you were attending *so closely*."

"I wasn't really," said Lilian, coolly, "but the misquotation roused me. It always seems to me such a breach of good faith and good manners to misquote."

"And so it is—a breach of both," said Mr. Russell, promptly. "I am, myself, I may say, unusually correct—almost infallible, in fact."

Lilian opened her fan with a twirl, and turned her face away. Why should it invariably happen, no matter how or when they met, that she must always find herself involved in some argument or discussion with this obtrusive man? She bit her lip angrily, and looked off at the sea-line with a determined gaze.

"But, you see," continued Mr. Russell, tranquilly transferring the rest of his observation from Miss Crystal to her more receptive friend, "the fact is, Miss Crystal expects too much of me. I disappoint her continuously. She fancies a secretary ought to know everything thoroughly and do everything perfectly. She expects him to be more than mortal, in fact. And—well—

I'm not that, Miss Welles. I have faults and shortcomings, like other human beings."

"No?" said Clara, deprecatingly. "Impossible! I thought Englishmen never had—in their own judgment!"

"Oh, yes; I assure you"—composedly—"they are not complete perfection by any means. I'm only sorry I can't quite fill Miss Crystal's ideal, that's all. And, you see, she blames me for what, in reality, is no fault of mine."

Lilian said not one word. She sat immovable. Miss Clara looked over, with a mischievous sparkle in her eyes, at the obstinate poise of her head, which still showed to her companion only its crowded braids of yellow hair.

"But I came up"—Mr. Russell roused himself from the contemplation of his own very pretty hands—"I left Colonel Crystal at the stables, and came up to say that it is his wish that I should drive Miss Crystal round the beach this evening. He doesn't feel quite well, and, of course, if Captain Bliss is coming to ride with you——"

"Oh, yes, indeed," assented Clara, delightedly. "Then you can go in the little phaeton with Lilian. That will be lovely!"

"I shall be charmed, for my part," murmured Mr. Russell, stroking his heavy brown mustache.

Miss Crystal turned her face round slowly.

"It need not make any difference with *your* arrangements, Clara," she said, clearly; "but, of course, I could not think of going with—without papa."

"It will make all the difference in the world," said Clara, in a disappointed voice. "I certainly won't go unless you do."

"But that is impossible," returned Lilian, steadily. "It is quite impossible, Clara dear, under the circumstances."

"Very well, then." Clara put on an air of resignation. "I suppose our ride can be postponed?"

"Yes, yes," said Mr. Russell, cheerfully, with a beaming smile at Lilian. "No doubt we can amuse ourselves quite as pleasantly at home."

To this suggestion Lilian made no reply beyond a glance of scorn, which seemed utterly lost on the culprit for whose confusion it was intended.

* * * * * * *

"Papa dear, will you do something for me—for Lilian? You won't like to do it, I know; and oh, it *is* hard for me to ask you!" She pressed her cheek to his. "But—you must not refuse! Promise me!—say Yes!"

The brown eyes of her long-dead mother were looking at him coaxingly from the lovely, troubled face.

"Well, but give me *some* idea of the services required. You do not expect an unconditional promise beforehand?"

"N—no! Of course not. But—you *will* say Yes, won't you? no matter what it is—no matter how strange it may seem? And I've never made such a request of you before. Papa, now, have I—have I ever?"

"Bless me! I should hope not. I hope you won't, now, Lilian. I have never known any little girl of mine to be unreasonable——"

"But I *am* unreasonable!" she interrupted, with something like a sob in her voice this time. "I am. You will say so, and—I know it's true. I am going to ask you to—to send Mr. Russell away?"

"Mr. Russell! Send Mr. Russell away!"

Colonel Crystal drew his head back to look in his daughter's face, but Lilian was not to be looked at just then. She laid her cheek down on his thick, gray hair.

"I ask you, and I beg you, papa, for my sake, to do this. I know how you prize him. I know all the sacrifice; but, papa, *I* will try to fill his place. I know I can. I will learn to do his work. And—and—papa, he makes me so unhappy that I can't bear it any longer!"

"My dear Lilian, what in the world—what *can* you mean? I must beg you to explain. Unhappy? Mr. Russell makes *you* unhappy?"

"He makes me wretched," she returned, vehemently. "My life has been miserable ever since he came to the house. I don't know why he should have this power to annoy and irritate me. From the first moment I disliked him, and every day seems to make the feeling more intense, and I never, never can hope to be happy or like myself again until he is gone!"

"My dear girl, my dear girl, calm yourself! I never thought you could be so vehement."

"I never thought so, papa. It tortures me to be drawn out of myself like this, but can I help it if these strong feelings come and possess me, and make me a different being? And so I want the cause to be removed. I ask you, and I beg you, to send Mr. Russell away!"

"Well, my dear, well—but, tell me, have you any special cause of complaint against Mr. Russell? Has he offended you in any way?"

"I knew you would ask me that," she said, despairingly; "and—there is nothing. I have no reason to complain. He is always gentlemanly and polite. And I have been so rude to him, so overbearing. You would be ashamed of me if you knew!"

"No, my Lilian; I am very sure I could not, under any circumstances, be ashamed of you."

"I have been ashamed of myself," she said, penitently, "often and often. But, papa, he provokes me so. He does not seem to know his place."

"His place, my dear?"

"Well, I can't explain, but, somehow, no matter how deferential he is, I always feel that he considers himself not only my equal, but my superior."

"And why not? In attainments he certainly *is* your superior, and in other respects, decidedly your equal; except, perhaps—well, some points of beauty are in your favor. Russell isn't handsome, that's so."

"Papa, and you really think that your secretary, who works at your command for a salary all week—you think he is the equal of your daughter"—she drew herself up with a lofty air—"Lilian Crystal?"

"I should like to know why not? You don't count your dollars, I hope—your paltry million or so—in the scale against a human being, the handiwork of the Great Maker? Do you think Russell would be a noble man, do you think you would like him any better, if he owned a lot of money?"

"Oh, no, no!" she said, impulsively; "I should hate him more, if that could be. Papa, it's hopeless, don't you see it is, this aversion? I feel nothing could alter my feeling, and that is why I ask you to part with him. If you knew how he makes me suffer, you would not, you could not, refuse me!"

"No one shall make you suffer, Lilian, if I have power to prevent it," her father answered, kindly, pressing her hand. "Mr. Russell goes next week, or sooner, if you like. Now are you happy, dear?"

"Oh, so happy, papa! Thank you! thank you!"

She laid her head down on her father's shoulder with a burst of tears.

* * * * * *

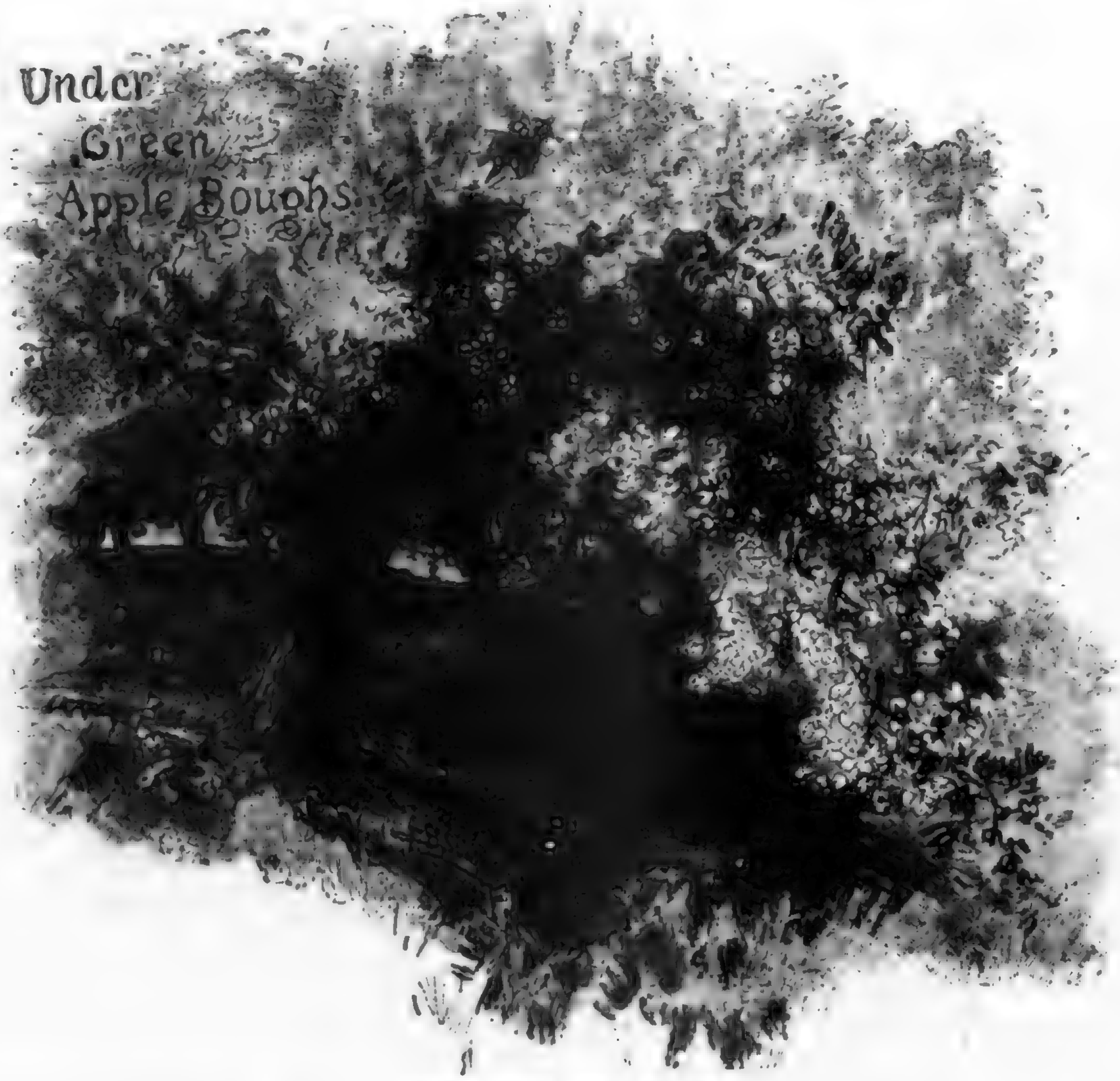
A tap at her door roused Lilian from the abstraction that seemed to be habitual with her of late.

"Come in," she called, languidly, without raising her eyes. Of course it could be only her maid or one of the servants.

"Miss Crystal."

Now, indeed, she lifted up her eyes with a flash of amazement; the color rushed to her cheeks. Mr. Russell had closed the door gently behind him, and advanced toward her. It was the first time he had ever entered her room, but his air was perfectly natural and unembarrassed.

"I have come to say good-by, Miss Crystal," he announced, in a self-possessed and friendly voice. Lilian had risen from her chair, and stood facing him in genuine surprise.



UNDER GREEN APPLE BOUGHS.

"Oh, I meant to come down. Of course I intended to—to—see you before——"

"Pardon me," he said, smiling. "The time was so short, and I was afraid you *might* forget."

"You must think I am a careless hostess."

"But I was not a guest," he rejoined, quickly. "And, at any rate, I wished to see you alone."

"Alone!" she echoed, coldly.

"Alone, to say good-by to you, if I must, and to tell you before I go—what you have long known, I think—that I love you, and—to ask you to be my wife."

He spoke clearly and distinctly, his strong, dark eyes fixed earnestly on Lilian's.

There was silence for a moment. Lilian's glance never wavered, but she had grown deadly pale.

"Forgive me," he said, more gently. "Perhaps I have startled you, but I thought you were fully aware—at any rate, I could not go from you with the truth unspoken. It is your right to know it, Lilian, and my right to demand a reply. I offer you now my love, and—my life."

"But how dare you?" she asked, in a low, shaken voice; "how dare you speak such words to me?"

It seemed she could say no more for sheer amazement.

"'I dare do all that may become a man,'" he replied, smiling strangely at her. "It requires no courage, believe me, to tell you that I love you, Lilian; but it *has* required courage to keep silence. Give me my answer," he continued, pleadingly. "But let it be from your heart, dear—from your heart!"

"I have answered you," she said, pantingly, her beautiful unflinching eyes still meeting his; "but I will repeat my answer: *How dare you speak such words to me? That* is the reply I make. And now, if you please, I will consider your farewells said."

She stretched out one hand toward him with a gesture of dismissal, but he reached her with a stride, and caught and clasped it in both his own.

"My farewells will be said when you refuse my offer, and when you tell me you do not love me—never till then."

"I refuse your offer," she said, instantly. "With indignation and contempt I refuse it!"

"Do you?" He smiled as he spoke the words. "Well, tell me now that you do not love me. Look into my eyes, Lilian, you that are the soul of truth, and tell me you do not love me. Oh, have courage, dear! Only look at me and speak, before Heaven and your own heart, the truth!"

But her eyes and her face were turned from him. He could see her neck, crimsoned with a burning blush; he could feel her hands twisting in his grasp, and he had no mercy.

"Dearest," he said, bending so near that his cheek almost touched her own, "I have known it all along. I have known you loved me. That is why I have spoken fearlessly; but I do not know the reason you refuse to marry me. Have I not the right to ask? Lilian, is it because I am poor, because in the eyes of the world my station is below your own? Dear, that should not count against a love like—ours!"

HELEN HUNT JACKSON.—SEE PAGE 311.

He said the last word almost in a whisper, but it seemed to strike Lilian Crystal like a scourge. She shook her hands free of his grasp with determined strength and fierce energy.

"I wish you to leave me, sir," she said, loftily. "I have no further word to say to you, and I will listen to your insults no longer!

"Insults!" The color flashed into his dark, pale face, but he controlled himself with a great effort. "What insults, Lilian; in God's name tell me, I beg you, for the sake of all justice?"

"Ask your own heart," she answered, firmly; and now she looked him bravely in the face. "Ask your memory. Ask this love-token." She touched the locket on his watchchain. "You are a treacherous man," she added, slowly.

Then Howard Russell laughed a joyous and most natural laugh.

"My beautiful, proud Lilian," he said, gayly, his eyes glowing with delight. "It is your own hair, dearest. Look!" He touched a little spring in the trinket and drew out a long, fair lock of hair. "I cut this from your head four years ago, and I have kept it ever since."

She looked at him, bewildered.

"Do you remember when you were in England, staying at Lady Arden's place, in Devonshire, being thrown from your horse on the road one day?"

"Yes," she said, faintly.

"You were unconscious for a time, and some people picked you up and cared for you. Can you remember who they were?"

"They were a party of young people. Lord Elton's children and their tutor. Of course I remember."

"And one of the young men, the eldest, cut the hair from your forehead where it was wounded, and bound it up with his handkerchief, and rode home with you through the park afterward."

"It was a boy who did that," she returned, quickly. "A boy with dark hair and eyes——" She stopped suddenly, confused.

"I was twenty, Lilian. I was old enough to love you. I have carried you in my heart ever since. They sent me back to college at Paris the very next week after that, but I loved you, Lilian! I kept trace of you through the Arden people, and as soon as I was my own master I came to America to find you. I am Howard Russell Elton. I told your father all, and he knew I had come to win you if I could. And I had his good will."

"But Clara told me of one you loved—some one you had left in England?"

"Dear, I left you in England. You were still at Lady Arden's when I went back to my studies in Paris. Have you forgotten everything about me? Can't you remember, even, that you danced with me once or twice there at a garden party the night before I started? You talked to me a little while beside the fountain, and I stood and worshiped you without a word. You wore a white silk dress, and most beautiful white pearls round your neck!"

"Yes; I remember now. You are Howard; but you are so changed, I should never have dreamed. And you thought of me all these years, and came to me! I can't realize it."

"But you will let me stay, Lilian? You are not angry any more?"

"It was wrong to make me so unhappy," she said, gently; but now her cheek was pressed against his shoulder, and she was smiling a little through her tears. "You puzzled and tortured me. I imagined it was only because you were—English, that you put on that air of superiority and—and treated me as if I were only a willful child. And I know you tried to show me constantly that you loved me, and were sure of my love. I thought you very base and wicked to do that when your word was pledged to another, and when I had given you no sign; no reason to think I—cared."

"Ah, but I knew. Forgive me, dear! I knew you hated Englishmen, but I knew you loved me! And so I was happy under your snubs and slights. I knew you were trying to hide your heart, and—I loved you so dearly, so desperately! Only think, all that long time since the moment I held you, unconscious, in my arms, and you opened your lovely eyes and looked at me under those old English elms in Devonshire! You seemed so womanly, so composed, so grown up, Lilian, and yet you were a year younger than I. I remember when we rode away together from the others, and I felt that you were under my protection. Oh, Lilian, my heart beat so I could scarcely speak to you. And you—you did not think of *me* at all?"

"Yes," she said, dreamily, "I thought you were a beautiful boy."

RETROSPECTION.

Do you remember now, when stars are filling
The blue and tranquil spaces of the night,
Warm kisses that once set my pulses thrilling,
And fed my after-dreams with fond delight?

Can you forget when oft, in fair, fresh sweetness,
I met you at the opening of the day,
The mellow air infused with Spring's completeness,
How on my lips your fragrant greeting lay?

I lived but in the glamour of your presence—
I scarcely think that I have lived since then:
Existence now seems like some subtle essence
Distilled from flowers that blossomed in your ken.

And you?—I wonder are your memories bitter?
If you still conjure up the old desire?
Or, like some dreamy and belated sitter,
Start, but to find cold ashes where was fire!"

CHINA-MAKING IN EUROPE.

Real china was first made in Europe by Böttcher, potter to Augustus II., Elector of Saxony. It had been known long before, even in England. "Some Oriental China bowls" were given to the high sheriff of Dorset, in 1506, by Philip of Austria, when he was driven into Weymouth by stress of weather. In 1587 Lord Burleigh and his son gave their queen "a porringer of white, and a cup of green porselyn." All sorts of stories were told about its nature and composition. True porcelain was supposed to be a test of poison, and was said to be made of egg-shells, and shells of marine locusts beaten small, and buried for a hundred years. Lord Bacon, credulous as usual, speaks of it as "a kind of plaster buried in the earth, and by length of time congealed and glazed into that fine substance." In Italy it had been imitated ever since the beginning of the sixteenth century. Venice, Ferrara, Florence, all claim the invention, and in 1695 it was made at St. Cloud; but all these are the soft porcelain—*pâte tendre*—made chiefly of pipe-clay and ground flint. The hard kind—*pâte dure*—of china-clay (kaolin) and feldspar, was made by Böttcher just three years before Father d'Entrecolles, head of the French Jesuits in China, sent home the secret to Father Orry, who soon founded the famous Sèvres works. Böttcher's discovery was made in the midst of wars. He was experimenting, when, in 1706, Charles XII. invaded Saxony. So Augustus sent him and three workmen, under an escort of dragoons, to the Königstein, one of those curious rocks which rise, like huge masses of masonry, out of the plain of the Elbe. There he worked on, having to act as warder over his men, whose love for art did not reconcile them to imprisonment. At last, in 1708, he pulled a teapot out of his furnace, and, handing it to Augustus, begged him to plunge it in cold water. It stood the test, and from that moment Dresden china—really made at Meissen, near Dresden—became a hard fact. Runaway workmen carried Böttcher's secret to other parts of Germany; he himself was a Berlin apothecary's assistant, who had run away to escape a prosecution for alchemy. First the Vienna factory—afterward taken in hand by Maria Theresa—was started by a runaway from Meissen. Then Ringler, a Vienna man, went to Höchst, near Maintz, and, for safety, always carried all his recipes in his pocket. His fellow-workmen, however, made him drunk and stole his papers, and were ready thenceforth to sell the mystery; just as some German Universities used to sell their degrees for a small consideration.

In France the first attempt at porcelain—*porcellana*, a shell used in enamel manufacture; or, say some, the common cowrie used in the East for money by the Venetian traders who first brought china-ware to Europe—was made by Louis Potera, Sieur de St. Estienne, at Rouen. His was *pâte tendre*, as was, also, that of St. Cloud, of which Martin Lister, physician to the Duke of Portland, said, in 1698: "I confess I could not distinguish between the pots made there and the finest china I ever saw." For a long time Chicanneau, the maker, had royal highnesses, lords, ambassadors, and a crowd of amateurs, daily at his works. His glory died with him; and when a discontented workman burnt down the place, in 1773, nobody cared to rebuild it.

The Sèvres work was first established at Vincennes. At the outset it was all soft paste, which will not bear great heat, and of which you can scratch the enamel with a knife, whereas that of the kaolin-china is as hard as glass. Here, again, to one man is due the perfecting of the art. Macquer, who was the Sèvres chemist from about 1750, hunted right and left for kaolin. The Germans would not let it be exported; the French, having little trade, could not bring it in from China—as was done to the Chelsea works—as ballast. Some beds were discovered near Alençon, but the porcelain made from them turned out gray and coarse. At last a poor country surgeon's wife, named Darnet, found the splendid beds at St. Yrieux, near Limoges, and thenceforward Sèvres was able to compete on equal terms with Dresden. Take care if you are buying "Sèvres" not to be duped in this way: Thousands of pieces, plain or marked with a gilt monogram, are painted elsewhere and sold as real Sèvres. Hold the piece slantwise to the light, and under the painting you will see the original monogram. Remember, too, that painted pieces are invariably marked "*décoré à* Sèvres" in addition to the mark. Otherwise the piece may be Sèvres, as the seller asserts it to be, and yet the painting may have been done in Staffordshire.

The first English china was made at Chelsea, probably by one of Dwight's workmen carrying out his master's process. Both here and at Bow—which began very soon after, about 1740—Chinese clay was used till the Celestials stopped the supplies. George II. encouraged the Chelsea works, paying £1,200 for a dinner and tea-service, which he sent to the Duke of Mecklenburg. In 1769, under one Spremont, it all came to a sudden end, the plant being bought by Duesbury, the owner of the Derby works, who, also, bought Bow and other London works. Wages had ranged from eight shillings and ninepence to one shilling and sixpence a day, the chief painter getting five shillings and threepence. Spremont—who made his fortune—made a good effort to keep out Dresden china, the importation of which, "for private use," at a tariff of eightpence per pound weight, was so abused as to injure the English trade.

Meanwhile, at Lowestoft, china had been made—and very good it is, with the Tudor rose as its mark. Browne, a Lowestoft man, was so determined to get at the secret, that he went to Bow, and bribed some of the workpeople, who hid him in a hogshead close by the furnace, through the bunghole of which he watched the owner steal in after the premises were clear, and mix his chemicals. It was Squire Luson, of Gunton Hall, who started the Lowestoft works. He must have been a brave man, for he had to fetch his clay all the way from West Cornwall, and his coal from Durham. His partner, Browne, was only paying out the Londoners in kind; for some London workmen whom Luson brought down were tampered with by the London makers, and spoiled his bakings time after time.

Plymouth china, again, is an instance of one man's work. William Cookworthy, son of a Quaker weaver, born in 1705, was apprenticed to a London chemist, his widowed mother being so poor that the boy had to walk all the way from Devonshire up to town. By-and-by he set up as a wholesale chemist in North Street, Plymouth. It has often been told how he, in 1748, met a Quaker from Virginia, who, having read in Du Halde all about kaolin and feldspar, had found over there a boundless store of both. He showed some samples of Virginia-made porcelain, "equal," thought Cookworthy, "to the Asiatic." This Virginian china-maker disappeared like a wraith; but Cookworthy found plenty of both the needful minerals in various parts of Cornwall, notably at Boconnoc, the estate of Pitt, Lord Camelford. He tried them, and made a china "as white in body as that of Dresden—far whiter, that is, than the Chinese." His earlier specimens, proud as he was of them, were no great success; most of them were cracked and clumsy, and unevenly glazed; and before long he engaged a Sèvres man, Saqui, to whom, along with Bone, the Plymouth enameler, are due the beautiful birds and flowers which mark the later Plymouth ware. The works did not pay, though the kaolin was to be had so near, and in 1774 Cookworthy sold them to Champion, of Bristol, and gave his mind to other experiments; helping Smeaton with his lighthouse; receiving Sir Joseph Banks and Dr. Solander, and Omai the Tahitian, whom Captain Cook brought home on his first voyage; and trying hard to perfect a plan for distilling sea-water for use on shipboard. At first Champion had a hard struggle. Wedgwood—a man of very petty jealousies—writes, in 1778: "Poor Champion is quite demolished. He had neither professional knowledge, nor sufficient capital, nor scarce any real acquaintance with the materials he was working upon. I suppose we might buy some of his growan stone and clay upon easy terms." Champion, however, was not at once demolished; he was taken up by Joseph Fry, grandfather of "Fry's Chocolate"; but at last he sold his patent to a Staffordshire company, himself being made by Burke a Deputy Paymaster-general of the Forces!

Worcester, in England, owes its china to Dr. Wall, of Merton College, Oxford, painter as well as chemist, who founded a china company in his native place in 1751; and Worcester china has always ranked high, not only for excellence of body, but for the beauty of the painting. There are plenty more little English porcelain centres, Liverpool among them, and Nottingham.

HELEN HUNT JACKSON.

(H. H.)

WHAT SHE WROTE, HOW SHE LIVED, AND WHERE SHE IS BURIED.

By Emily Pierce.

"There are nine 'places of divine worship' in Colorado Springs—the Presbyterian, the Cumberland Presbyterian, the Methodist, the South Methodist, the Episcopal, the Congregationalist, the Baptist, the Unitarian, and Cheyenne Cañon."

So wrote Helen Hunt Jackson, as an introductory to one of her most finished sketches of mountain scenery. A little further on she writes: "Sittings are free in the Cathedral of Cheyenne Cañon," and all who knew her life will remember that, during its later years, this grand Cañon Cathedral held one devout worshiper at each Sunday service; but during the last long year the great mountains of the West have missed the presence of their faithful devotee, and the restless feet of the Summer's throng have gone in solemn pilgrimage to visit, as a holy shrine, the lonely grave in which she lies in the very heart of Cheyenne Mountain.

The most prominent feature in the works of Helen Hunt Jackson is the element of nature, and all her writings are impregnated with a passion of love, a subtle sympathy for and with nature, that showed itself in almost equal power in her earlier New England sketches, and in her later, grander pictures of Colorado, of which she wrote much and lovingly.

Here was her last home, and here her strong affections took firm root, and, following Mr. Whistler's nomenclature, she called Colorado "a symphony in yellow and red." Here she found, "the desert had infinite beauties of shape, and the sage had pathos of color"; and of a common sand-drift in the street she said: "No snow-drift can be lovelier."

She was an observer of the first order, and possessed the power of making vividly real the account of what she saw. Glimpses, with her, meant more than most people's patient study. There is a rare gift in writing, that Mrs. Jackson possessed in a marked degree. It is the power of translating into words the subtle atmospheric influences—not mere physical, but also mental and moral—

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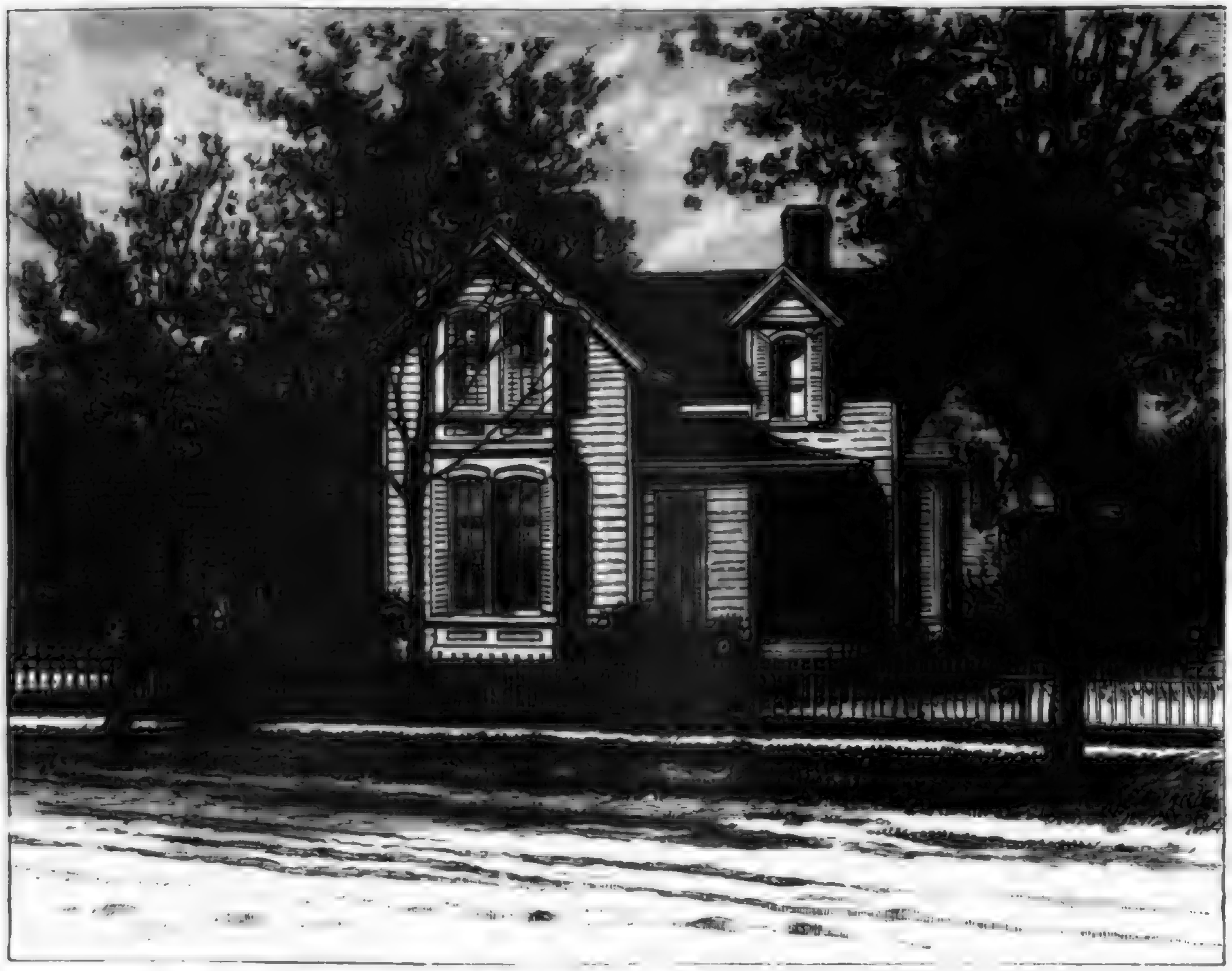


THE HOME OF HELEN HUNT JACKSON.

of a given place. As we read, we feel the spell of the spot stealing over us. Some visitors to the "Centennial State" have said they failed to find what she described, and were disappointed. But it was their fault, not hers. It was all there, and she saw it; but they, being blind to truest beauty and lacking sympathy, could not understand.

Each painter in words, as in pigments, has his own way of presenting nature; each one sees different things in a different light; but it would be difficult to find united in any single painter qualities equivalent to those found in the landscape art of Mrs. Helen Hunt Jackson. Painters are rarely so broad in their scope. The broadest contrasts, of blazing masses, gorgeous in the magnificence of their hues, to the most delicate perceptions of shadings; tones melting deliciously into each other, a range sweeping from the somberest depths to heights that lose themselves in luminous air.

Let us glance at a few, out of many hundreds, in the gallery of her pictures of nature.

The transition shown in the poem called "In the Pass," is one of the best examples of the gift of presenting pictures in sharp contrast. It is like the passages in a symphony where, from a noise like a war of the elements, there is instant change to sweet harmonies like peace eternal:

"Across my road a mountain rose of rock -
Fierce, naked rock. Its shadow, black and chill,
Shut out the sun. Gray clouds which seemed to mock
With cruel challenges my helpless will,
Sprang up and scaled the steepest crags. The shrill
Winds, two and two, went breathless out and in,
Filling the darkened air with evil din.

"I turned away my weary steps and said:
'This must be confine of some fearful place;
Here is no path for mortal man to tread.
Who enters here will tremble, face to face,
With powers of darkness, whose unearthly race
In cloud and wind and storm delights to dwell;
Ruling them all by an uncanny spell.'

"The guide but smiled, and holding fast my hand,
Compelled me up a path I had not seen.
It wound round ledges where I scarce could stand;
It plunged to sudden sunless depths between
Immeasurable cliffs, which seemed to lean
Together, closing, as we passed, like door
Of dungeon which would open never more.

"I said again: 'I will not go. This way
Is not for mortal feet.' Again the guide
But smiled, and I again could but obey.
The path grew narrow; thundering by its side,
As loud as ocean at its highest tide,
A river rushed, all black, and green, and white,
A boiling stream of molten malachite.

"Sudden I heard a joyous cry, 'Behold, behold!'
And smiling still on me, the good guide turned,
And pointed where broad, sunny fields unrolled
And spread like banners; green, so green it burned,
And lit the air like red; and blue which yearned
From all the lofty dome of sky, and bent
And folded low and circling like a tent;

"And forests ranged like armies, round and round,
At feet of mountains of eternal snow;
And valleys all alive with happy sound;
The song of birds; swift brooks' delicious flow;
The mystic hum of million things that grow;
The stir of men; and, gladdening every way,
Voices of little children at their play;

"And shining banks of flowers which words refuse
To paint; such colors as in Summer light
The rarest, fleetest Summer rainbows use,
But set in gold of sun, and silver white
Of dew, as thick as gems which blind the sight
On altar fronts, inlaid with priceless things,
The jeweled gifts of centuries of kings."

What more perfect sketch of nature, of harvest plenty, than her "Fallow Field"!—what more exquisite sermon of faith and patience:

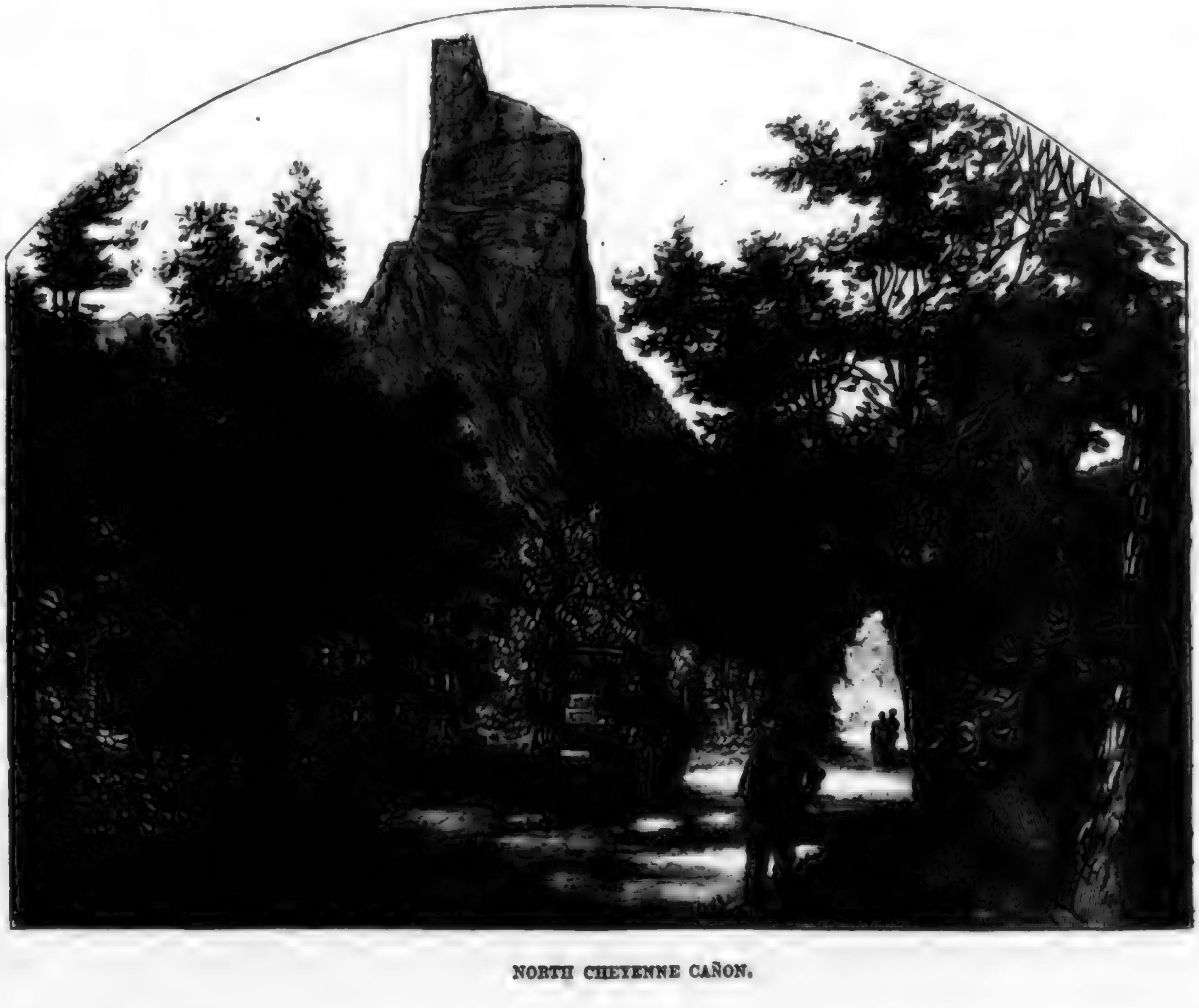
"Above, below me, on the hill,
Great fields of grain their fullness fill;
The golden fruit bends down the trees;
The grass stands high round mower's knees;
The bee pants through the clover-beds,
And cannot taste of half the heads;
The farmer stands, with greedy eyes,
And counts his harvest's growing size.

"Among his fields, so fair to see,
He takes no count, no note of me.
I lie and bask along the hill,
Content and idle, idle still;
My lazy silence never stirred
By breathless bee or hungry bird:
All creatures know the cribs which yield;
No creature seeks the fallow field.

"But to no field on all the hill
Come sun and rain with more good-will;
All secrets which they bear and bring
To wheat before its ripening,
To clover turning purple red,
To grass in bloom for mower's tread—
They tell the same to my bare waste,
But never once bid me to haste.

"Winter is near, and snow is sweet;
Who knows if they be seeds of wheat
Or clover which my bosom fill?
Who knows how many Summers will
Be needed, spent, before one thing
Is ready for my harvesting?
And after all, if all were laid
Into sure balances and weighed,
Who knows if all the gain and get
On which hot human hearts are set
Do more than mark the drouth and dearth
Through which this little dust of earth
Must lie and wait in God's great hand,
A patient bit of fallow land?"

What a grand bouquet of color she gives us in her autumnal picture of "The Miracle Play of 1870, in Bethlehem, New Hampshire." To select a passage to quote is like choosing a single leaf from the full glory of an October maple. Let us follow her as she gathers her brilliant trophies, and listen while she tells us: "With reverent eyes we went close into territory after territory; coming nearer, we found that the scarlet, or the claret, or the crimson, or the orange, which we had seen from the distance as one pure, uniform tint, was no longer scarlet, or claret, or crimson, or orange, but all of these, and more than all of these, shading up and down and into each other by gradations indistinguishably fine and beyond all counting; alternating and interrupting each other, in single leaves or in clusters on boughs, with an infinity of change and combination almost like caprice or frolic. I have seen our Western prairies in their June flowering; I have seen also the mosaic fields of blossoms in the Ampezzo Pass, at which one cannot so much as look without shaded eyes, and from which Titian learnt color; I



NORTH CHEYENNE CAÑON.

XUM

have seen old altar-fronts on which generations and centuries of kings have lavished jewels till they are so thick-set that not one more dot can be added ; but I have never seen such flaming, shading, shaping, changing, lavishing, rioting of color as in this death of the Autumn leaves on these Bethlehem hills."

In sharp contrast with this vivid bit of Northern autumnal coloring, we read that tropic scene of exquisite loveliness from her noblest work, the novel of "Ramona": "The wild mustard in Southern California is like that spoken of in the New Testament, in the branches of which the birds of the air may rest. Coming up out of the earth, so slender a stem that dozens can find a starting-point in an inch, it darts up, a slender, straight shoot, five, ten, twenty feet, with hundreds of fine feathery branches locking and interlocking with all the other hundreds around it, till it is an inextricable network like lace. Then it bursts into yellow bloom, still finer, more feathery and lace-like. The stems are so infinitesimally small, and of so dark a green, that at a short distance they do not show, and the cloud of blossom seems floating in the air ; at times it looks like golden dust. With a clear blue sky behind it, as it is often seen, it looks like a golden snowstorm. The plant is a tyrant and a nuisance—the terror of the farmer. It takes riotous possession of a whole field in a season ; once in, never out ; for one plant this year, a million the next ; but it is impossible to wish that the land were freed from it. Its gold is as distinct a value to the eye as the nugget-gold is in the pocket." Here, with the saintly Father Salvatierra, we stand, straining our eyes forward into the golden mist of blossoms, and catch our first clear view of the face of beautiful Ramona.

As a poet, Mrs. Jackson takes rank with Mrs. Browning. Glancing through the little volume bearing the modest title, "Verses by H. H.," one is glad to echo that never-to-be-forgotten tribute to her genius by Emerson, who said, when asked the question, "Don't you think Helen Hunt the greatest woman poet in America?" replied : "Why not drop the word *woman?*"

Of all her poems, Emerson's favorite was her sonnet called "Thought," while the poem which combines most of depth and popular sympathy bears the well-known homely title of "Spinning." Her poems seem written through the light of actual experience—emanate from the very centre of her heart. We lay aside the little volume, only to return and read over and over her impassioned words as a fit translation of the mute language of our own individual soul. To her, more than to any other woman of her time, is applicable that definition of the secret of the power of Madame Recamier, given by Châteaubriand, who, when asked to explain her wonderful gift of attracting and holding all who came within her orbit, replied : "Sympathy, sympathy, sympathy."

Beginning literary work late in life, Helen Hunt became one of the most enthusiastic and prolific of writers. She was thirty-four years of age, and already a childless widow, declaring of herself, "I alone am left, who avail nothing," when, through the great mystery of her grief, she first spoke to other bereaved hearts, through the fourteen lines of blank verse called "Lifted Over," referring to the death of her boy, and signed "Marah," through blinding tears. How many mothers have read it as an echo of a broken heart, and yet confessed its comfort, and subscribed to its faith !

"As tender mothers guiding baby steps,
When places come at which the tiny feet
Would trip, lift up the little ones in arms
Of love, and set them down beyond the harm.
So did Our Father watch the precious boy,
Led o'er the stones by me, who stumbled oft
Myself, but strove to help my darling on.
He saw the sweet limbs faltering, and saw
Rough ways before us, where my arms would fail;
So reached from heaven, and lifting the dear child,
Who smiled in leaving me, he put him down
Beyond all hurt, beyond my sight, and bade
Him wait for me! Shall I not then be glad,
And, thanking God, press on to overtake?"

This first poem, and first work of this gifted woman, seems to embody a clearness of faith and spiritual vision unequaled by any that followed, until we read the closing lines, which were penned, I believe, four days before she left us, written in the presence of Death, and the fitting "Swan-song," of the sweetest singer of our own, or any age :

"A LAST PRAYER.

"Father, I scarcely dare to pray,
So clear I see, now it is done,
That I have wasted half my day,
And left my work but just begun;

"So clear I see that things I thought
Were right or harmless were a sin;
So clear I see that I have sought,
Unconscious, selfish aims to win;

"So clear I see that I have hurt
The souls I might have helped to save;
That I have slothful been, inert,
Deaf to the calls Thy leaders gave.

"In outskirts of Thy kingdoms vast,
Father, the humblest spot give me;
Set me the lowliest task Thou hast,
Let me, repentant, work for Thee!"
"AUGUST 8TH, 1885."

As a novelist, Helen Hunt Jackson scored a signal triumph through her noblest work, "Ramona," although it was an open secret that two of the most interesting volumes of the No Name Series, "Mercy Philbeck's Choice" and "Hetty's Strange History," emanated from her prolific pen.

Of the Saxe Holm's Stories, no one can read the initial sketch, "Draxy Miller's Dowry," and for one moment doubt its authorship, although regarding this series Mrs. Jackson always maintained a profound silence. Had she really wished to hide her relationship to these charming sketches she should not have introduced the three verses which divulge her secret to every lover of her poetry. Her poems were a part of herself, and the sweetest and simplest part is "Draxy's Hymn" :

"I cannot think but God must know
About the thing I long for so.
I know He is so good, so kind,
I cannot think but He will find
Some way to help, some way to show
Me to the thing I long for so.

"I stretch my hand—it lies so near;
It looks so sweet, it looks so dear.
'Dear Lord,' I pray, 'oh, let me know
If it is wrong to want it so!'
He only smiles—He does not speak;
My heart grows weaker and more weak,
With looking at the thing so dear,
Which lies so far and yet so near.

"Now, Lord, I leave at Thy loved feet,
This thing which looks so near, so sweet,
I will not seek, I will not long—
I almost fear I have been wrong.
I'll go and work the harder, Lord,
And wait till by some loud, clear word,
Thou callest me to Thy loved feet,
To take this thing so dear, so sweet."

Her charming prose sketches are bound together under the unpretending title of "Bits"; "Bits of Travel Abroad," "Bits of Travel at Home," "Bits of Talk for Young Folks." Whether at home or abroad, she is always at home with her subject, and we learn that she so interested the American tourist in her fascinating "German Landlady," as to actually advance the general price of board and lodging in the City of Munich where she located; while her Colorado sketches are adopted as a travelers' handbook in the region which they so graphically describe.

Children's stories fell from her versatile pen like fairy tales from a young mother's lips. "The Hunter of Cats of Connorloa," "Mammy Tittleback's Stories," and "Nelly's Silver Mine," were followed by a book called "The Training of Children," of which subject she betrayed her usual degree of keen insight and offered practical suggestion.

Possibly the cleverest "Bit" Mrs. Jackson ever gave the world, was a sketch that appeared in the May number of *The Century*, 1885, called "The Prince's Little Sweetheart." Written in the simple style of a fairy story, such as any child would enjoy, it vails a satire upon love and marriage, keen, deadly, true. The story fills only three pages, but covers the mistake of a lifetime. It should be artistically illustrated, brought out as a dainty volume *de luxe*, and utilized as fit and meet for a wedding-gift to every "Prince" who possesses a "Little Sweetheart." We read between the closing lines and there find the pith and meaning of the whole:

> "'I hate him!' cried the Little Sweetheart, her eyes flashing and her cheeks scarlet.
>
> "'Oh, no, you don't!' exclaimed all the spider-sweepers. 'That's the worst of it. You may think you do, but you don't. You love him all the time after you've once begun.'
>
> "'I'll go home!' said the Little Sweetheart.
>
> "'You can't,' said the others. 'It is not permitted.'
>
> "'Is it always just like this in this Court?' she asked.
>
> "'Yes, always the same. One day just like another; all whirl and dance from morning till night, and new people coming and going all the time, and spiders most of all. You can't think how fast brooms wear out in this Court!'
>
> "'I'll die!' said the Little Sweetheart.
>
> "'Oh, no, you won't,' they said. 'There are some of us, in some of the rooms here, that are wrinkled and gray-haired. The most of the sweethearts live to be old.'
>
> "'Do they?' said the Little Sweetheart, and burst into tears."

For nearly twenty years Helen Hunt was loved as a poet and acknowledged as a painter in words through her published sketches, but while her connection with the No Name Series was not definitely settled, it was a mooted question whether she was capable of the sustained effort required as a novelist. This problem she solved by giving the world "Ramona," in the year 1884. A book of sufficient merit to claim its place among standard works and a masterpiece of genius, in that while every page is an appeal in behalf of the injured race whose cause she so nobly espoused, yet never a line of its literary structure is sacrificed.

She was a marvel of versatility. This will be believed when we say that the late Dr. Holland "formed a plan to let Mrs. Jackson's contributions accumulate sufficiently to fill one number of *The Century*—poetry, fiction, travels, criticism, and all—and then send it all forth as the product of one person." This plan was finally dismissed, we are told; not from the slightest doubt of its practicability, but only because it might be viewed as sensational.

As a zealous philanthropist, she takes rank above all women of her generation, and all the powers of her later years were merged into a moral enthusiasm that controlled her mind and directed her pen.

In the Autumn of 1873 she journeyed to Colorado. She was much discouraged and disheartened by chronic diphtheria, and sought the benefit which that invigorating climate promises. She reached the Inter-Ocean Hotel at Denver on a dull afternoon in November, and the climax of her misery was completed by a cheerless room and a smoking chimney. She was dissolved in tears, anathematizing the country, and resolved to shake its dust from her feet, when one of her letters of introduction was answered in the person of one of the oldest of Colorado's pioneers and her most genial and hospitable of hosts, in whose home Helen Hunt was ever afterward a welcome and honored guest.

She had come to Colorado absolutely unprejudiced upon the question that so largely colored the last interest of her life; but it chanced that her host was the one man in Colorado who bore the title he had earned—"the Indian's friend"—and from this first Colorado acquaintance, and with her first footfall upon the very threshold of a new home, she encountered the element of influence that afterward swayed her entire life.

By temperament fastidious, and naturally conservative, yet equally impulsive and earnest, this many-sided woman threw her whole soul into this question of Indian reform, and henceforth she subordinated literature, not to an ulterior aim merely, but to a single aim.

She wrote to a friend at the beginning of the year 1880:

> "I have done now, I believe, the last of the things I had said I never would do. I have become what I have said a thousand times was the most odious thing in life, 'a woman with a hobby.' But I cannot help it. I think I feel as you must have felt in the old Abolition days. I cannot think of anything else from night to morning, and from morning to night. I believe the time is drawing near for a great change in our policy toward the Indian. In some respects, it seems to me, he is really worse off than the slaves. They did have, in the majority of cases, good homes, and they were not much more arbitrarily controlled than the Indian is by the agent on a reservation. He can order a corporal's guard to fire on an Indian at any time he sees fit. He is duly empowered by the Government."

She immediately carried her theories into active practice, and began her work in earnest. She corresponded with statesmen, she visited remote tribes, she spent months in the Astor Library in New York city, she worked herself sick, and gave the world her "Century of Dishonor."

Soon afterward she received an appointment from the United States Government to report on the condition and needs of the California "Mission Indians," and in the Spring of 1883 she visited the region and explored the history of the early Spanish missions. This saddest and most picturesque era of California history won her earnest enthusiasm, and sketch after sketch was drawn by her artistic pen—a line of pictures as vivid, lifelike and correct, as they were tender and sympathetic, yet each was a separate record of outrage and wrong.

One of the first fruits of the harvest which Helen Hunt Jackson sowed with such royal generosity is the perpetuation of the memory of her eloquent words in the very region where she most powerfully pleaded against Indian wrongs, by the founding of "The Ramona School at Santa Fé."

This memorial school bears the name of the impassioned story which so deeply stirred the hearts of the American people for our Indian population. It is an industrial school for Indian girls, and the outgrowth of the efforts made by the University of New Mexico to

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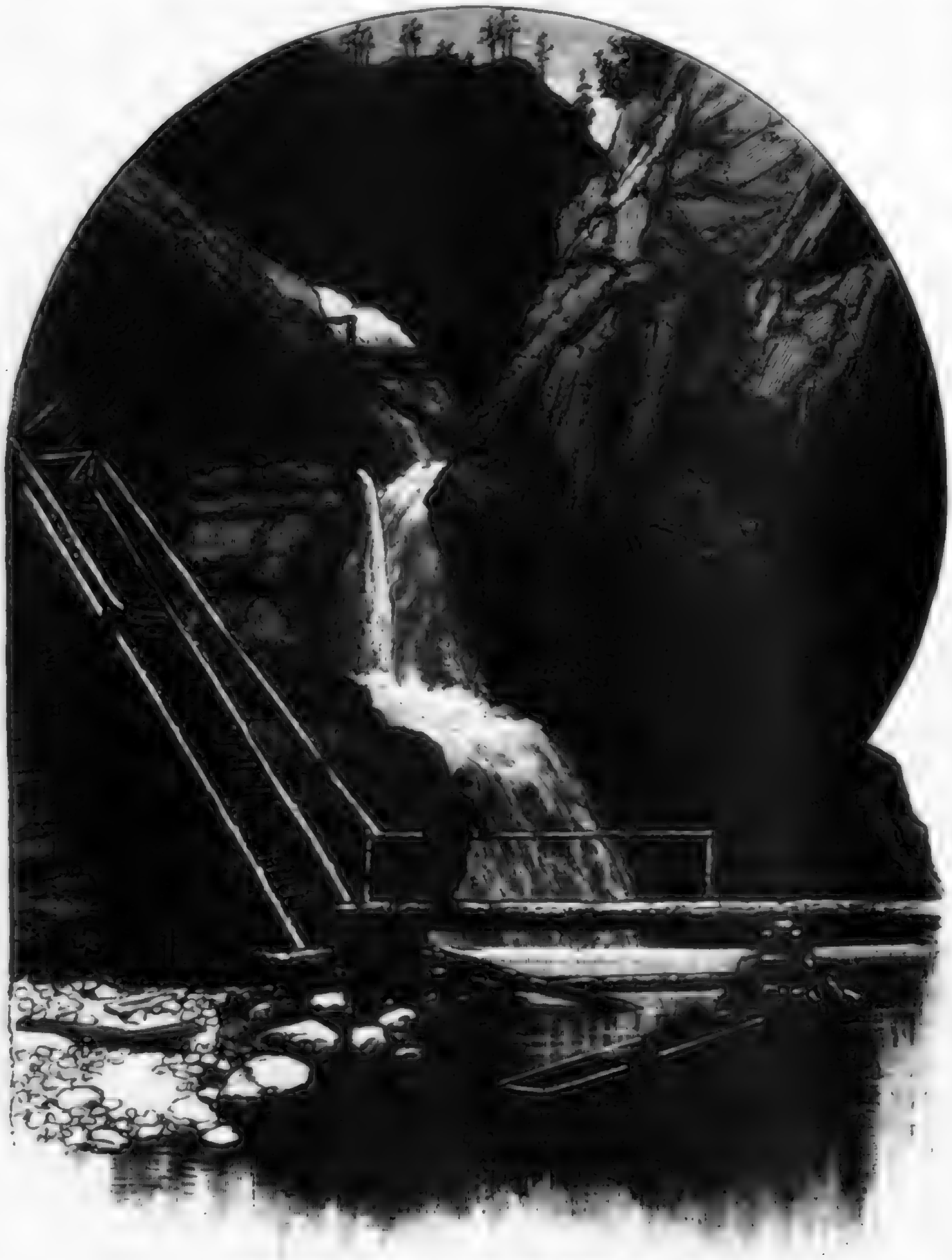


CHEYENNE FALLS—PATH TO THE GRAVE OF "H. H."

reach by education the hitherto almost neglected tribes of the Southwest.

Its Indian pupils were at first of both sexes, and chiefly from the Pueblo tribes within one hundred miles of Santa Fé. A few were also gathered from the Apaches in the southern part of the Territory. Special efforts are now being made to educate the Navajo and Apache tribes, who are mostly pagan, and wholly ignorant. They number 30,000, and, including other heathen tribes in New Mexico and Arizona, have 10,000 youth of school age. They are steeped in superstition, and from civilization they have contracted nothing save its worst vices.

Yet this great Apache nation includes the hardiest, most warlike, shrewd, agile and capable tribes of our American Indians. In some of their industries, notably weaving, they show remarkable skill, even in their barbarous condition, and they have signalized themselves during the last two generations in successful war with the United States, as for 200 years with Mexico and Spain. They are but just now conquered. Their wealth is great in value and patriarchal in kind. Yet all of these Apache tribes are living in mental and moral barbarism.

The condition of women among them is as singular as deplorable. They are sold for wives at twelve years, and owned as slaves. They are the industrious part of the people, and, among the Navajos especially, soon acquire controlling influence by their ownership of the sheep and the profits of their skill at weaving. They have the right of voting, and of divorce when they choose, but are again sold by their relatives for wives and must endure the evils of polygamy.

To civilize these tribes, their children, and especially their girls, must have a proper industrial and Christian education, that will lead them to establish homes rather than build the temporary hogans and tepees in which they now dwell. Without such education the citizenship of these peoples, in their present condition, though it be immediately given, as now demanded, would be shameful to any government or nation.

The Ramona School is devoted entirely to educating girls of these heathen tribes, taken at an early age and kept for three or five years, or longer, *by consent of and contract with their parents and with the United States Indian Office*, removed from all the degrading impressions and evils of the Reservation.

The noble woman who wrought this beginning of a great work left us before the cornerstone of its first foundation was laid; but the coming years will give abundant proof of the power with which she wrought.

The story of the life of Helen Jackson, especially the last sad, brave months of her life, is too familiar to be enlarged upon. Massachusetts is honored by naming her as one of its daughters, for she was born at Amherst in October, 1831. She was the eldest of the two daughters of Professor Nathan Fiske, of Amherst College, and when just twenty-one years of age was married, in Boston, to Captain Edward B. Hunt, an officer in the United States Army. The loss of her husband, who was killed October 2d, 1863, at Brooklyn, N. Y., while experimenting with some invention of his own construction, and the death of her two beautiful boys, left her, in the year 1865, utterly crushed through heavy bereavements.

The outgrowth of this discipline of sorrow was her appearance in a new *rôle*, and her earlier literary efforts breathed an atmosphere of profound sorrow. Her earlier poems appeared under the soon well-beloved and widely known signature of "H. H.," and the New York *Independent* gave most of them to the world, as it did, also, her first attempts in prose. Her relation with that journal continued till the time of her death; her contributions numbering 371 articles in all.

During the Autumn of 1873 she visited the Centennial State in search of health, and soon afterward made it her permanent home. Here she met Mr. William Shapless Jackson, of Colorado Springs, and in 1875 became his wife. She planned and built her house in this spot of her heart's choice, with her own artistic execution and unfailing judgment, and it stands to-day a lonely evidence of the beauty-loving eyes and rare taste of its lost mistress.

She looked upon Colorado with the eyes of a lover, and wrote of it enthusiastically. To her, the crude railway town, with the ringing hammers, was "A New Anvil Chorus." The bloom on the mountain-side was "the Procession of Flowers," and the nearest and most beautiful valley was "the Cradle of Peace." And she made her readers hear the music of her "Anvil Chorus," and sniff the perfume of her "Procession of Flowers," and rocked them in her "Cradle of Peace."

Her brave eyes closed upon earth, and its beauties that she had loved so well, on the afternoon of August 12th, 1885, and at the close of the burial service her poem "Last Words" was read; being a fitting ending to her life page, as it is to her volume of "Verses."

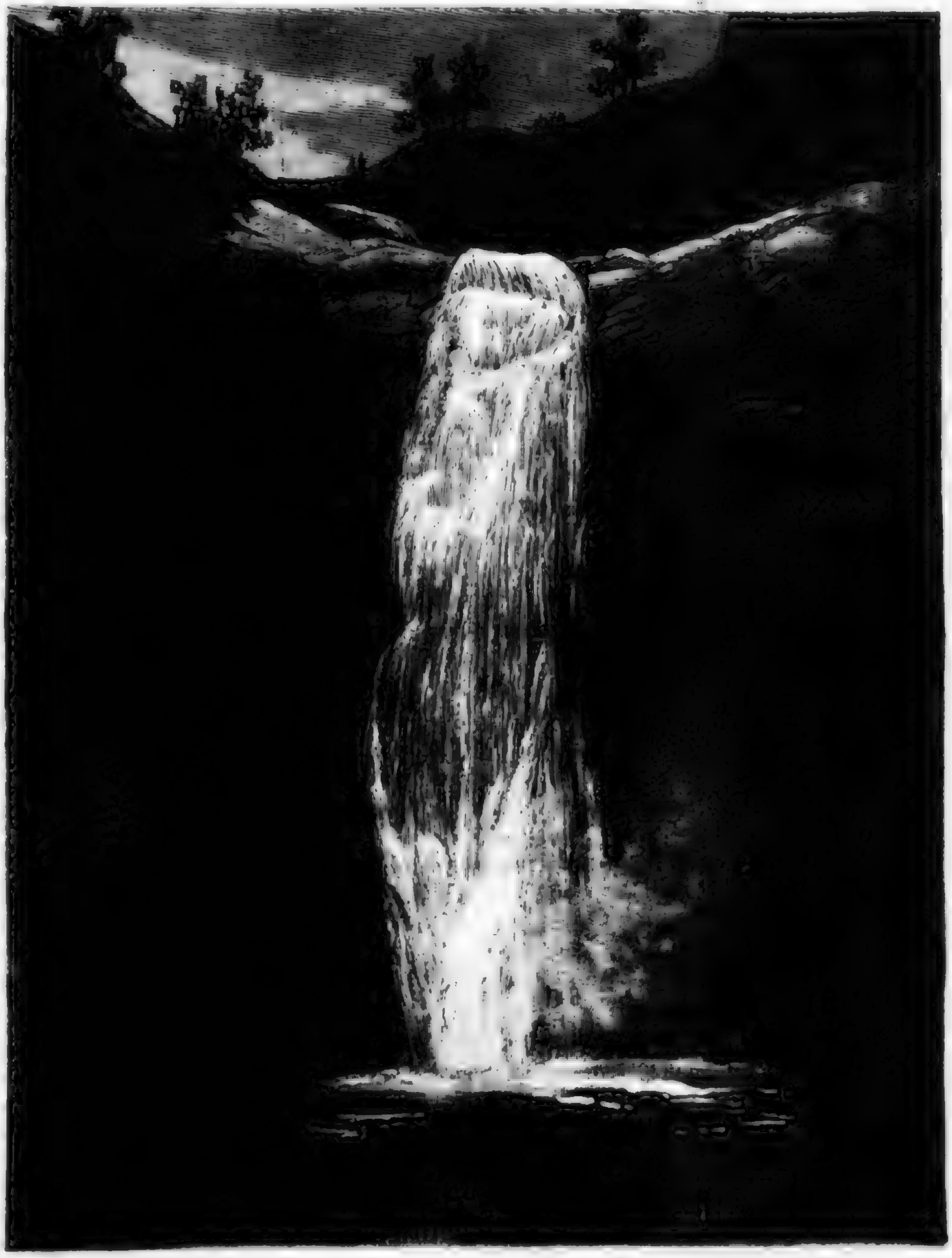
Cheyenne Cañon was her favorite haunt during her ten years' residence in Colorado, her resort for "Cathedral Service" on Sunday, and, in addition to her avowed love for this wild and romantic spot, there is an incident of local interest that alone seemed to make this nook of nature especially her own. The residents of Colorado Springs will recollect that, several years before her death, a certain man, of beggarly nature and grasping soul, thought to fill his coffers by levying tax upon his townspeople who were blessed with a larger gift of appreciation than himself. So he purchased the land *in front of the entrance* to the Cañon, built a fence and a gateway and left an Englishman in charge to collect entrance-toll.

Ever impulsive in her scorn of mean actions, on this occasion Mrs. Jackson roused herself to her best effort. She rallied her full force of tongue, pen and friends. She lashed him with the first, scored him with the second, and incited the last to the riotous pitch of tearing down and carrying away the offending barrier in its entirety. It is needless to say that the popular sense of justice triumphed and the fence was never rebuilt.

It was in the month of November, a year ago, that the first funeral train, with its little band of only six mourners, moved up through the precipitous pathway of Cheyenne Cañon, and with loving hands laid in her final resting-place all that was mortal of the gifted woman, whose last request was that her last sleep should be in this beautiful "Cradle of Peace."

"And had she not high honor?
The hillside for her pall,
To lie in state while angels wait,
With stars for tapers tall."

The grave lies in a gentle slope, just above the larger fall, and the music of its waters is her eternal requiem. Already the spot is looked upon as a shrine, and each visitor who toils up the tiresome height adds a stone to the rising cairn at the head of the lonely grave, while tender Mother Nature has covered the mound above the heart of her most loving child with a fitting screen of kinnikinnick, the "Indian's evergreen," a vine she particularly loved because of its tenacity to life, its bright scarlet berries, and, above all, its traditional solace to



CHEYENNE FALLS, NEAR THE GRAVE.

the red man. For, be it known that this same kinnikinnick was their original tobacco before the introduction of the Virginia weed, and to this day no festival or council is ever celebrated without the two weeds are mingled and smoked from the council-pipe, be it of war or peace.

It is easy to write of Helen Hunt Jackson in her various *rôles* of poet, novelist, philanthropist, but the *woman* eludes us; and yet it is noticeable that, in all the tributes to her memory—and they have been written with pens dipped in tears—in all it is the *woman*, rather than the accomplished writer, to whom all hearts do homage.

Susan Coolidge, the comrade of her travels and the friend of her heart, has given us, through the *Christian Union*, the following faint shadow of this woman, who has impoverished the world by going out of it:

"I cannot find her type; in her were blent
Each varied and each fortunate element
Which souls combine, with something all her own
Sadness and mirthfulness, a chorded strain,
The tender heart, the keen and searching brain,
The social zest, the power to live alone.

"Comrade of comrades—giving man the slip,
To seek in Nature truest comradeship,
Tenacity and impulse ruled her fate,
This grasping firmly, what that flashed to feel—
The velvet scabbard and the sword of steel,
The gift to love, to frankly hate!

"Patience as strong as was her hopefulness;
A joy in loving which grew never less
As years went on and age drew gravely nigh;
Vision which pierced the vailing mists of pain,
And saw beyond the mortal shadows plain
The eternal day-dawn broadening in the sky;

"The love of doing, and the scorn of done;
The playful fancy, which, like glinting sun,
No child could daunt, no loneliness could smother.
Upon her ardent pulse death's chilliness lies;
Closed the brave lips, the merry, questioning eyes.
She was herself!—there is not such another."

THE LANGLEY BURGLARY.

The large party assembled as usual at Langley Towers to celebrate in approved fashion the approaching 1st of September, were all collected one night after dinner in the drawing-room, when the conversation, hitherto rather languid, chanced to turn on a burglary that had taken place in the neighborhood. Every one at once seized on the topic, and proceeded to relate more or less irrelevant, but all alike ghastly, stories of famous burglaries and robberies, till suddenly Miss Cecil Clifford, a cousin of Lady Langley's, a very pretty girl and an heiress to boot, who had hitherto taken no part in the talk, looked up suddenly and said:

"I do wish you would not all discuss such horrors! How do you expect us to sleep quietly in our beds if you will insist on retailing such frightful stories, especially as those wretches who broke into Colston Park are still at large? I feel as if I should find a burglar in my room to-night; so, if I should rouse the house with a false alarm, don't blame me!"

"I think I should die if I were to wake and see one in my room!" exclaimed little Lady Langley, shrugging her pretty white shoulders in not wholly affected fright.

"At all events, the man would not trouble you long with his company if that tin case of yours, with your diamonds in it, were lying on your dressing-table as usual," returned her cousin. "I know you'll be murdered through those diamonds one day!"

"Do you really mean that Lady Langley keeps her jewelry on her dressing-table?" asked Captain le Marchant, an impecunious young man, who was suspected, on very good grounds, of being *au mieux* with the pretty heiress, and who was, in consequence, rather out of favor with her guardians.

"To be sure she does," laughed his host; "and, as Cecil says, I know we shall wake up some fine morning to find ourselves corpses because of that whim of hers."

"What's the use of having jewelry if it is always to be at the banker's?" retorted Lady Langley.

"I wish to goodness you'd be sensible, Flo'," remonstrated her cousin, "and have it kept in the plate-room, at all events. I know that I shall do nothing but dream of your diamonds!"

Lady Langley laughed gayly, and seemed to take a malicious pleasure in keeping the conversation on the same subject, despite her cousin's very evident dislike of it; in which she was assisted by Captain le Marchant, who chaffed Miss Clifford a good deal about her nerves, until the party separated for the night.

Next morning the house was in confusion, for the diamonds were gone!

Lady Langley missed them the moment she rose, for, her maid being far from well at the time, she had bidden the girl not sit up for her, and had undressed herself, leaving her diamonds, which she had been wearing, loose on her dressing-table, where Cecil Clifford found them when she came to her cousin's room to bid her good-night as usual, and she put them in their case. Of course, every hole and corner was searched, but in vain. The police came, but were equally unsuccessful. Not a trace of either the thieves or the jewelry was to be found. The police, including the detective hastily summoned from London, were positive that the robbery had been committed by some one in the house—a conviction that did not add to the comfort of the inmates of Langley Towers. Suspicion ran riot; the household servants, one and all, belonged to well-known and respectable families in the neighborhood, and had mostly been for considerable periods in the Langleys' service; while the visitors' servants, as it happened, seemed equally above suspicion. The only person who ventured to differ from the officials was Captain le Marchant, who openly pooh-poohed the whole thing as simply invented by the police to screen their own incompetence.

Whether from conviction or opposition, Miss Clifford embraced the police theory, and before long her suspicion fell on the maid of one of the visitors, who she felt convinced was at least an accomplice. Unfortunately for this poor girl, Cecil Clifford confided her doubts to her cousin, who in her turn unconsciously betrayed them to the detective; so the unlucky maid was immediately placed under a surveillance that rendered her life a burden to her, and ultimately cost her her situation.

Captain le Marchant remonstrated several times on the subject with his *fiancée* (for such she really was, though the engagement was not officially acknowledged), but without effect. She somehow seemed to distrust him, as of late, from some cause or other, his usual sunny temper had quite deserted him; his tongue had acquired a bitterness new to his friends; whilst his handsome, merry face had grown to look worn and haggard.

Miss Clifford, though still persisting in her opinion, bore his strictures with gentle patience, laying the very evident temper he showed to the account of some money troubles that she well knew were worrying him; but at last he went too far, and ere their interview on this occasion terminated the engagement between them was summarily broken off by the lady.

Captain le Marchant never took any steps to bring about a reconciliation, which, on her side, Cecil Clifford was far too proud to dream of, though what the estrangement cost her only she could have told. All she knew about him was that he had exchanged into a regiment stationed in India, and beyond one other fact she heard no more of him till, three or four years later, the newspapers told her that he had joined the army in Egypt, and formed one of the band sent to the relief of Gordon and Khartoum. Strangely enough, the one fact that she did hear privately—namely his having, before leaving England, provided for the future of the poor girl who had suffered so severely from the suspicions that were cast upon her about the lost diamonds—only seemed to render her more incensed against her betrothed.

Six or seven years had passed since the burglary at Langley, when one night, toward the end of the season, Miss Clifford (Miss Clifford still, in spite of her wealth and beauty), at a large dinner, found herself being introduced to "Colonel le Marchant" by her host, who, ignorant of their previous acquaintance, had been actuated by a benevolent desire "to do dear old Denis a good turn" by making him acquainted with the heiress.

The old lovers stood for a moment face to face in silence, scrutinizing one another, the lady secretly, though not a trace of the hard work he had undergone escaped her; the gentleman openly. He was the first to speak.

"It is long since we met, Miss Clifford."

"Not since we were together at Langley," she replied.

"Yes; when the diamonds were stolen. I wonder if that business will ever be cleared up?"

Just then dinner was announced; and the guests filed down in solemn procession. Although Colonel le Marchant escorted Miss Clifford, her attention was at first claimed by her other neighbors. But when the conversation had become sufficiently animated to allow of private conversation, Colonel le Marchant turned toward her, and their eyes met.

"What a wretched time that was?" he said, softly.

"At Langley, do you mean? Yes; indeed it was. But was it not curious how they found those diamonds?"

"Found them! you don't say so!" he exclaimed, eagerly. "When? Do tell me, please, Miss Clifford. You see I only came home a few days ago, and have heard nothing."

"Oh, it is nearly a year since. Sir James was out fishing with one of the boys, when his line got entangled in the branches of an old tree which had fallen into the river at some time. In disentangling it they saw something wedged in against the trunk of the tree which, after a little trouble, they fished out. It proved to be the identical case in which Lady Langley kept her diamonds, and when it was forced open there they were, safe enough, and reports which appeared later declared that the box must have lain there ever since the night of the robbery.

"Curious!" said Colonel le Marchant, slowly.

"Yes, is it not?" she forced herself to answer, quietly, for the strange expression on her companion's face troubled her, she scarcely knew why. "I suppose there can be no doubt that it was some of the servants, though, after such a lapse of time, it would be hopeless to try and bring it home to any one."

Le Marchant looked at her sharply, and was just going to speak, when their host interrupted him with some question about the Soudan, and the conversation became general till the ladies retired.

Miss Clifford had sheltered herself in the drawing-room behind a large portfolio of rare prints to think undisturbed over her unexpected meeting with her old lover, when the subject of her thoughts quietly came up and took a seat beside her.

"I cannot tell you how glad I am that those diamonds have been recovered," he said.

"So am I," she answered. "Do you know, I feel as if I were a clairvoyant or something of the sort, for ever since the robbery, whenever I have been at all unwell, my nightmare has been about those diamonds and the river. I hear the rushing of the water quite plainly," she went on, dreamily, unconsciously dropping into the old tone her companion remembered so well. "I wonder why it is!"

"I suppose it is because you really hid the diamonds under the bank of Langley Water," was the answer.

"I hid the diamonds! What on earth do you mean? You must be mad, Colonel le Marchant!"

"No, I am not. I saw you do it," he replied, quietly.

"You saw me do it! Then why to goodness did you not say so at the time?"

"Because I *was* mad then, Cecil, and made a horrible mistake."

"You thought I stole the diamonds?"

He was silent.

"Then that was why you were so keen about that poor little lady's maid?"

He nodded.

"You believed—oh!—and were trying to screen me all the time!"

"Forgive me, Cecil."

"But do you mean that you actually saw me take the diamonds?" she asked, in wonder. "Please tell me!"

"I had sat up late in the smoking-room, worrying over some money trouble, when, startled to find how late it was, I was retreating as silently as I could to my quarters. As I was passing along the bedroom passage I suddenly saw you, in your dressing-gown, come out of Lady Langley's room carrying a tin box. Instinctively I drew back behind the curtain of the staircase window, and you walked by without noticing me. I followed you softly. You went to the little side door into the garden by the drawing-room, about which young Lovat had chaffed Langley so much, unfastened it, and went out, right across the lawn toward the river. Then, to my horror, you bent over the bank till I felt certain you would slip in, and I was just rushing up to catch you when you scrambled back—without the box! You returned as you came, by the little door (through which I followed you), and regained your room. I was too utterly taken aback to speak to you, for the idea that you were sleep-walking never struck me till just now. Next morning, when the robbery was discovered, I remembered the box you had carried; and then the recollection of that tin case you and Lady Langley had spoken of the previous night flashed across my mind."

"But did you never go to look at the place?"

"Yes, that very day; but though I felt certain that I was on the exact spot, I could find nothing. This confirmed my suspicions that you had an accomplice, for I watched you closely enough to know that you had not yourself again visited the river. So you can imagine my feelings when I found you, as I thought, trying to fix the crime on Mrs. Crompton's maid."

"Good heavens! Then that was what you meant that last day, when you made me so angry! Well, confusion for confusion, Colonel le Marchant. You saw me, as you thought, steal the diamonds. For my part, judging

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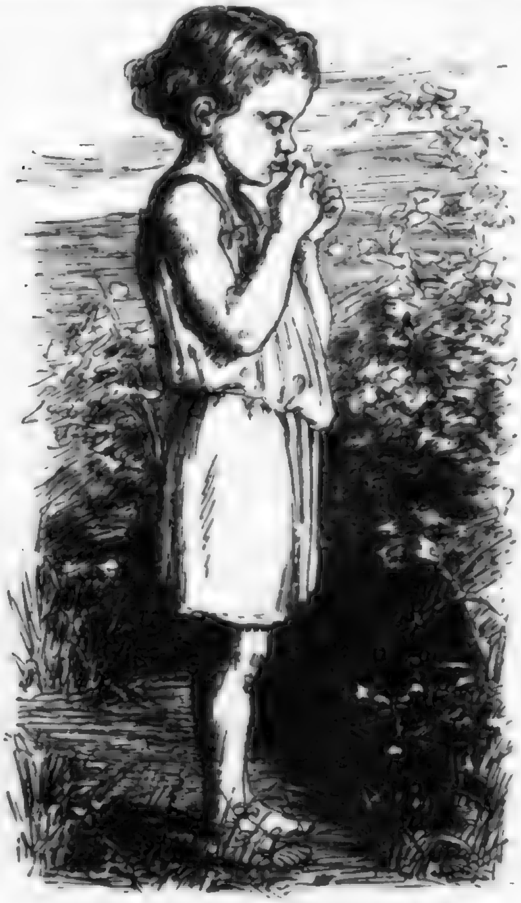


THE LEGEND OF THE FORGET-ME-NOT.

from your agitation at the time, and your energy in defending that poor girl, I grew convinced that you knew more of the robbery than you should have done, and actually believed that your subsequent kindness to her was simply remorse for having let her be suspected of the theft."

"What a chapter of accidents," said Colonel le Marchant, slowly. "If only we had spoken out at the time! I can scarcely complain of your doubt; but yet I think you should have known me better."

"You doubted me, Denis!"

"But I saw you!"

Miss Clifford smiled.

Still sheltered by the portfolio which they were both apparently so interested in, Colonel le Marchant caught his companion's hand, and whispered:

"Let bygones be bygones, Cecil, and set one mistake against the other. They have lost us years of happiness already!"

Though their *tête-à-tête* was interrupted by their hostess, Miss Clifford must have found means of answering this appeal, for, before the week was out, all the world and his wife were discussing the impending marriage of Colonel le Marchant and the hitherto unapproachable heiress.

THE LEGEND OF THE FORGET-ME-NOT.

By Lucy M. Blinn.

Sit here beside me, darling, in this pleasant "children's hour,"
While I tell a sweet old legend of a lovely little flower;
A flower that hides its bashful face in wildest, lowliest spot,
And shuns the kisses of the sun—the fair Forget-me-not.

'Tis said that in the Edenland the blossoms and the birds
Had each a language of its own, and spoke in quaintest words;
And Eve, her waiting mother heart on gracious cares intent,
Walked lovingly among them, and named them as she went.

Beside a shaded river a little flower she found,
Lifting its shrinking, blue-eyed face up from the mossy ground;
She kissed and called it "Bloom of Heaven"; it answered to her call—
And of Eden's wealth of sweet things, she loved it best of all.

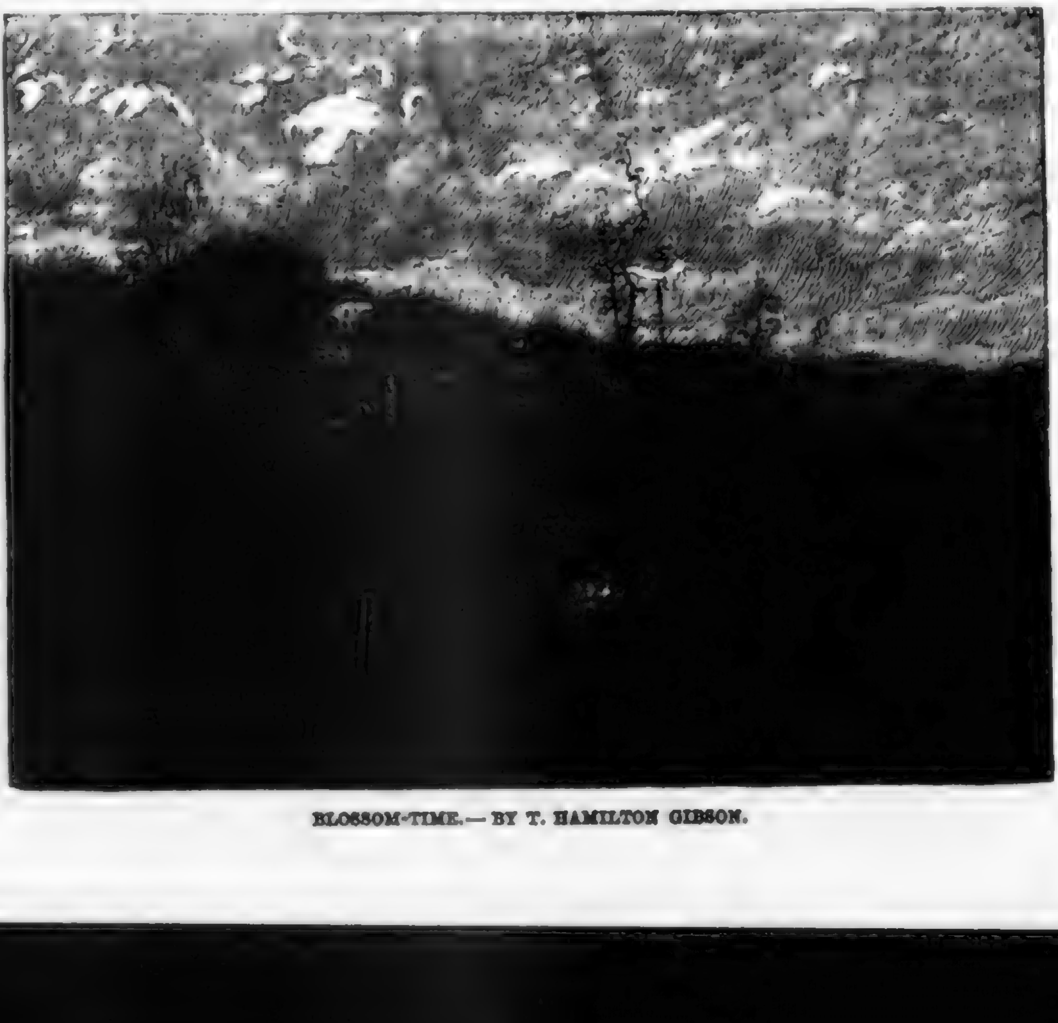
Alas! one day poor sin-bowed Eve, with sorrow-streaming eyes,
Went sadly down her garden walk—banished from Paradise!
The roses blushed and turned aside—when, hark, in accents sweet,
"Forget me not," was faintly breathed, in whispers at her feet.

'Twas her little "Bloom of Heaven" that spoke; she caught the tiny spray,
And pressed it to her breaking heart to soothe its pain away;
"'Forget-me-not' art thou, my flower! for thou alone of all
That I have loved remember me, nor scorn me for my fall!"

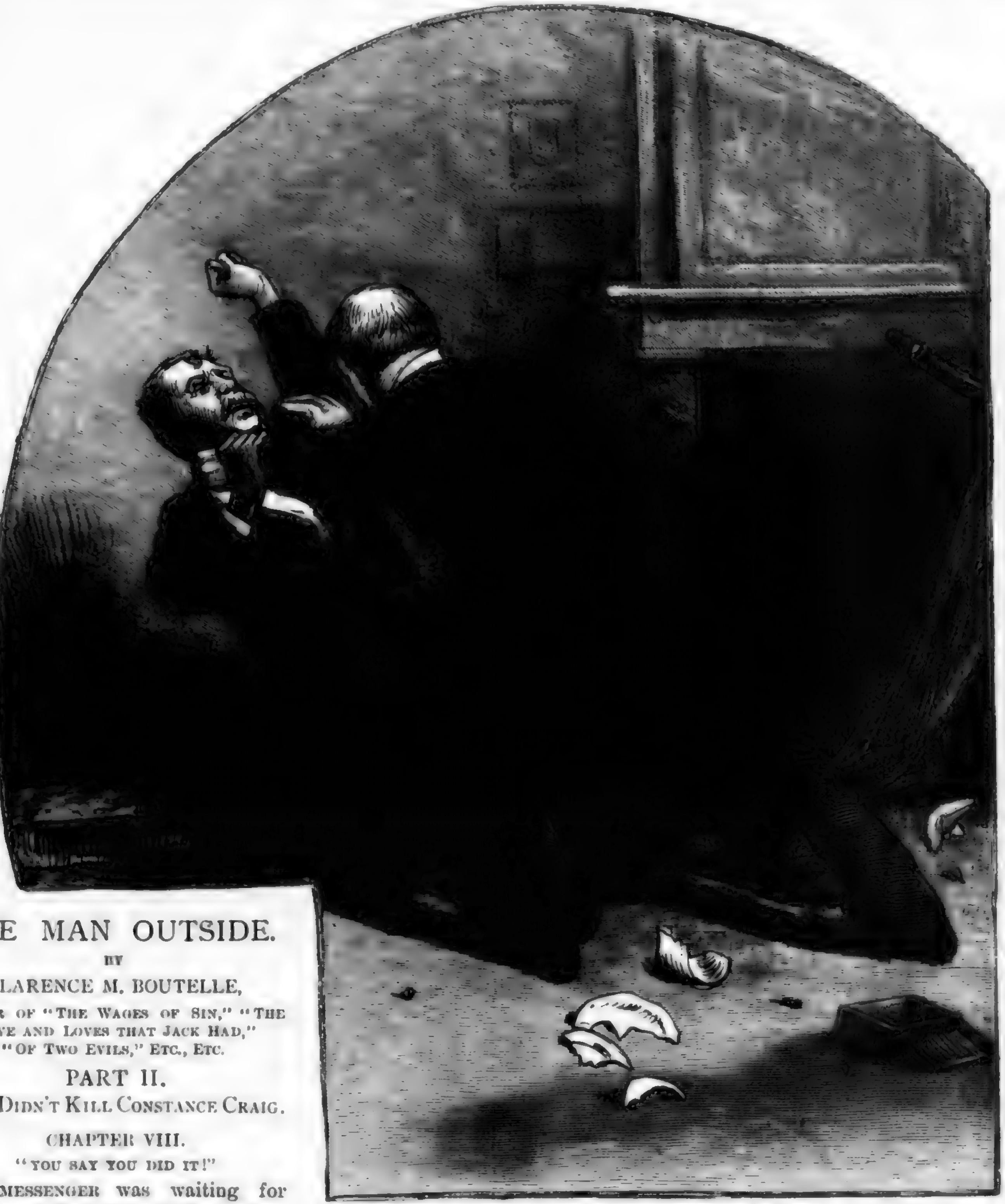
The steadfast blossom lived for her—it gave her all its bloom—
It whispered comfort when she died—it grew upon her tomb;
But when the sad, distressful days of crime and shame were come,
The pretty blossom bowed her head, dismayed and hurt and dumb!

For long, long years her voice was hushed, when, one midsummer day,
Upon the hills of Galilee, a Child went forth to play;
The waiting blossom heard His step—she cried aloud in bliss—
As she felt the loving pressure of the little Christ Child's kiss!

And the legend tells us, darling, that the child whose tender heart
Loves all of earth's sweet mysteries, and claims in each a part,
May, on the bright midsummer night, the queen night of the year,
Hear all the pretty blossoms tell what I have told you here.



BLOSSOM-TIME.—BY T. HAMILTON GIBSON.



THE MAN OUTSIDE.—"A FURIOUS FIGHT ENSUED IN THE DARKNESS, AND FOR A LITTLE WHILE THE RESULT SEEMED IN DOUBT. BOTH WERE SO DESPERATE WITH ANGER THAT THEY DID NOT STOP TO CONSIDER CONSEQUENCES."

THE MAN OUTSIDE.

BY

CLARENCE M. BOUTELLE,

AUTHOR OF "THE WAGES OF SIN," "THE LOVE AND LOVES THAT JACK HAD," "OF TWO EVILS," ETC., ETC.

PART II.

WHO DIDN'T KILL CONSTANCE CRAIG.

CHAPTER VIII.

"YOU SAY YOU DID IT!"

A MESSENGER was waiting for Mr. Senn when he and the detective reached the hotel. Since the man had been to the bank, found it closed, gone to Senn's boarding-place, found he was absent, and then reached the hotel in advance of as hungry a man as Senn and as anxious a man as Prier, it is evident that he was both shrewd and swift.

Mr. Senn took the letter, noticed that it was unsealed, glanced at the address upon the envelope,

G. SENN, ESQ.,
INTRODUCING S. LYMAN,

and lost no time in reading what was written within. It was no more than he had expected, perhaps, but the receipt of the letter was a terrible shock, nevertheless. It was as follows:

"BOOMVILLE, MAINE, *November 8th*, 1870.

"MR. GILBERT SENN: You will deliver the keys, books, etc., of the bank owned by my late father, Donald Barron, and known as '*Barron's Boomville Bank*,' to the bearer, Mr. S. Lyman, who will take charge of my business hereafter. The subordinate employés will be retained in the bank at present. You can make Mr. Lyman familiar with the business, or you can delegate that work to those who have worked with you. ELSIE BARRON-SENN.

"P. S.—It is only fair to say that I defy you. I am your wife—in name. I shall never submit to your control, or your presence near me, however. Remember that I can prosecute you at any time, and that I can force Mr. Prier to testify, on his oath, to what you confessed. I shall let you retain your freedom, however, *if you are prudent!*

"I shall not let you assist further in my business. I shall not grant you a partnership. I warn you not to try to thwart me or baffle me. E. B. S.

"P. S., No. 2.—You will not find it necessary to consult with Mr. Prier regarding the settlement of my business. He will not be admitted to the bank again on any pretext. E. B. S."

Mr. Senn delivered the key to Mr. Lyman, taking a receipt for it.

"I have no other property belonging to Mrs. Senn or to her father," he said; "and, as I half expected that Mr. Barron's death would result in some changes in the force employed, I have given Mr. Clark full instructions regarding the money and the books. You will find Mr. Clark on hand in the morning, and can obtain full information from him."

"But, Mr. Senn," said Mr. Lyman, "I have never met Mr. Clark; I am a stranger—or almost a stranger—in the place; I—I think this is very irregular."

"It is. For a man to be displaced from a position which he has held for years, *is* very irregular. Good-evening, Mr. Lyman."

"Good-evening," said that individual, pleasantly enough, but with a look in his eyes which belied his tone.

He bowed low, looked curiously at Mr. Prier, and was gone.

"Read that," said Senn, extending his wife's note.

Prier read it, and handed it back.

"You will do what she demands, I suppose?" he asked.

"I shall."

"Without regard to your rights?"

Senn looked up to meet Prier's smile; he remembered his own question of the morning, and took the implied rebuke good-naturedly.

"Without regard to my rights. I feel that I've only one right which I care for at all, just now—the right to a good supper, after my day's fast."

"And you shall have it. Come upto my room at once."

They went up-stairs together. A supper was served which was a credit alike to the "Boomville House," and to the taste and judgment of Mr. J. B. Prier.

"I would rather have his friendship than his enmity," said Mr. Prier, suddenly, after Senn had had an opportunity to somewhat lessen his hunger.

"Whose?" asked Senn.

The new cashier's. You dismissed him very abruptly and treated him in a most shabby manner."

"Well, what of it?"

"This: I have no doubt he read Mrs. Senn's letter; she threatens you in that; I should be sorry, were I in your place, to have him possess a better reason than the fact of his being in her service for desiring my injury."

"It's true she threatens, but her threats are vague. What do they mean to an outsider? They may be nothing more than the results of a quarrel between a husband and wife who have learned to hate each other at the threshold of their married life; no one could be sure that anything in her letter proved that love might not once have existed between the writer and the one addressed. Am I not right?"

"You are, and yet——"

"And yet you are kind enough to wish me well, and tired and worn enough to see evil for me in the future? Is it not so? I do not like Mr. Lyman; I felt at once that I never could like him; and I never waste words on those I do not and cannot like. Do you?"

Mr. Prier laughed.

"You heard me call myself 'the talkative detective'; I am talkative, and I am frank; I never waste words on any persons outside two classes; my friends—and my victims."

"And I—I suppose I am——"

"Who spent a day opening the safe for you? Who has cloyed your intellect with good advice?"

"You did; you have. My question is answered. Do you like Mr. Lyman?"

Prier reached across the table, took the letter from Senn's hands, and read it again.

"S. Lyman," he said, meditatively, "S. Lyman; no, I don't like him. I should prefer leaving out the period after his initial, and spelling Lyman with a small *l*. Say, Gilbert Senn, do you think I'd run any business without keeping my eyes wide open?"

"No; I think not."

"You may be sure I wouldn't. And yet, if I were going to open a bank to-morrow, and if I had to put S. Lyman or Gilbert Senn at the head of it, my choice would be Gilbert Senn——"

"Thank you."

"Though I never trusted a thief, yet, and would hate to trust a liar," concluded the detective, in an almost inaudible undertone, as he meditatively stirred his coffee.

"You are making a good meal," laughed Senn, "for a man who had supper since we got the safe open."

"I didn't have supper."

"You didn't? You went away to get supper."

"I know I did. But there was some writing which had to be done. I forgot my hunger in my attention to my work."

"Did you? What was your work?"

"I'll tell you—later. By-the-way, I suppose there will have to be an inquest over Donald Barron, after all; I heard, as I came from the bank, that the doctors are being found fault with, and the accuracy of their conclusions is being called in question. Do you suppose it possible——"

Prier stopped just there. He was watching Senn closely. Senn got up, walked to the windows, closed the blinds, drew down the curtains, and came back to the table. His face was pale. His hands shook as he tried to pick up his knife and fork. His voice trembled when he spoke:

"I don't know what to suppose. There are possibilities so horrible—so horrible——"

And he covered his eyes with his hands, as though to shut out some dreadful sight.

"What possibilities?"

"Mind you, I accuse no one; I suppose old Donald Barron died alone, and in a perfectly natural way. And yet—and yet——"

"Well? What is it? The night is going fast."

"Thank God for that."

"For what?"

"That the night is going fast. It is horrible—horrible—and I cannot bear it."

"Well, go on with what you were about to say."

"I will. Picture this: A man sleeping quietly and healthfully; an opened door; a stealthy footstep along his floor; a sudden awakening of the sleeper to life—only to find head and throat muffled in a hot and seemingly impenetrable covering, while some strong wretch presses it closer and closer, avoiding the almost aimless blows which a blind animal-instinct prompts. Think of many long minutes of that; think of the death which lies at the end of it, a death without a sign left behind to tell how it happened; think—think—Merciful God! can a human mind picture such a horrible—fiendish——"

Prier sprang forward. He caught Senn by the shoulders, his fingers leaving marks which were not obliterated for many a day, and dragged him nearer the light.

"What—what do you mean? What can you tell?" he fairly screamed into the ears of the once cashier.

Senn sank back into the chair from which he had risen, and covered his face with his hands again. It was more than a minute before he tried to speak. Then he looked up, and said, brokenly :

"You—you surely—cannot think that I—that *I*—killed Donald Barron ?"

"No ; *I know you didn't.* I haven't told you yet where I spent last night ; I have only told you I spent it outside. I haven't told you yet how it would have been impossible, in the state I was in, in a state of nervous dread and agitation, for me to have done other than I did. The truth is, I felt the bank and its treasures were as safe as they had ever been—far safer since robbery had happened once—and I didn't watch there. I walked, all night long, in front of Mr. Barron's house ; no one went in ; you are innocent—there. In fact, I am convinced that an inquest in his case would be a farce ; he was not murdered ; he died a natural death. But——"

"But what ?"

"But people have died in the way you pictured, and remorse has led their slayers, again and again, to deeds and looks and words which were little less than confession. And you—you, Gilbert Senn——"

Prier's passion mastered him then, and for a little time he could not find words.

He pushed a paper across the table toward Senn.

"Sign that !" he said, roughly.

Senn took up the paper and read it slowly through, his amazement showing more and more on his face as he read. This was the paper he was asked to append his name to ; this is the character he was asked to claim for himself :

"BOOMVILLE, MAINE,
WEDNESDAY MORNING, *November 9th*, 1870.

"TO WHOM IT MAY CONCERN : I, Gilbert Senn, in the presence of Mr. J. B. Prier, of the City of Boston, a detective having a considerable knowledge of the facts, do make and subscribe to the following statements. And I do declare that I do so without fear of personal violence being done me by the said Prier ; and I do further declare that I will indorse all which is herein stated when I am brought before the legal authorities, and that I will then answer all questions which may be asked me, and will answer them fully and truthfully :

"1. I knew Constance Craig.

"2. I was acquainted with the arrangement of rooms in the house which she occupied.

"3. I knew some of the servants, and knew that they were sometimes all absent.

"4. I went to her house on the evening before the morning when she was found dead in her bed. I went then, rather than at any other time, because the servants were all away. I knew they would be absent. I unlawfully entered the sleeping-room of Constance Craig.

"5. She awoke and found me in her room. I found that I was recognized. I caught up a pillow and held it over her face. I intended to kill her. I held the pillow there for many minutes. I held it until her struggles had ceased. When I lifted it up she was dead.

"6. I knew, when I entered the room of Constance Craig, that murder was likely to be necessary. I deliberately and thoughtfully did as I did, with the possibilities fully in mind, and I neither claim now, nor will I ever, at any time, claim, that the murder was the result of sudden passion, the result of unforeseen circumstances, nor that it was committed in self defense.

"7. I will, when arraigned before the proper tribunal, plead guilty of the crime of murder in the first degree, and will not plead extenuating circumstances of any kind.

"8. I promise to reveal fully all that regards the causes of the crime, and to give the names of all who knew of my purposes or any parts of them."

Senn finished the reading, and looked dazedly up. Prier sat watching him narrowly, one hand—the right—being thrust carelessly into his pocket.

"Sign it !" he thundered at Senn.

Senn pushed the document back across the table.

"I will never sign it," he said, quietly, "for it would be a terrible lie ! I—I am not guilty. I never—never heard the name of Constance Craig before."

"Gilbert Senn, one or the other of us will never leave this room alive unless I get to the bottom of this mystery which has troubled me for years."

"Very well. I am unarmed, as you know, for you took pains to inquire of me this morning. It will be the easiest thing in the world for you to kill me ; it will be a cowardly thing to do—but it may be a kind one ; for I had rather die than have the world at large know a word against my name and my honor."

"You would ?"

"I would. I have a mother, a gray-haired old lady, living among the hills to the north of us ; I love her more than I love anything else in this world. It would kill her to know that her boy had gone wrong, and so you——"

"Well ?"

"And so you can shoot me to death, if you desire, but you can neither threaten nor bribe nor coax me into putting my name at the bottom of that horrid lie !"

"Lie ? Is it a lie ?"

"It is. It would be a crime for me to sign it. I never knew Constance Craig. I never knew the servants of Constance Craig, for I never knew the servants of any person with whom I was personally unacquainted. I did not know the arrangement of the rooms in her house, for I never entered the house of a stranger. I never entered the sleeping-room of any woman. I never committed the crime of murder. I will never sign the paper you have presented to me ; I will not call for help ; I will not try to escape. If you are resolved that I must sign or die, kill me at once ; you will gain nothing by waiting."

"You say you had rather die than have dishonor and disgrace connected with you ?"

"I said it ; with me—*or with any one who bears my name*. I would——"

"No matter. We are wandering from the subject. You would not like the world to know that you robbed the bank here ?"

"No ; but I don't worry about that. The world will not know it."

"It may. I know it, and your wife knows it."

"Very well. Suppose you two do ? You will neither of you tell. But it is you who are wandering from the subject now ; am I to live—or to die ?"

"Excuse me, Mr. Senn, but I am *not* wandering from the subject. The bank-robbery is as closely connected with the murder of Constance Craig as any one event can be connected with another. Will you tell me why I will not tell that you robbed the bank ?"

"Because your story would be ridiculous and apparently merely malicious if unconfirmed by other evidence. Think of what you have to tell, ending with helping a bank-robber open his dead employer's safe and then inviting him home to supper. Would any one credit such a tale ? You would be laughed out of Boomville."

"And why will not Mrs. Senn tell ?"

"For various reasons. No one ever before heard of a woman doing what she did ; no one would believe it now. She may have the same idea regarding dishonor and disgrace that I have ; you remember what she did for her father ; you remember that she is a Senn now. Besides, I understand that some have the idea that her marriage was arranged solely to the end that the business in which her father was engaged might have the benefit of the money I am supposed to have had. I think she may be willing to let that idea go uncontradicted."

"But there would be dishonor and disgrace in that."

"True. But women and men sell themselves in marriage—sell themselves for gold—every day. It may be less evident than in this case, usually, though none the less true. Compared with the greater evil of being known as a felon's wife, Mrs. Senn may be very willing to be regarded as a very avaricious person."

Hope was fighting with fear in Senn's breast. The night was going fast. With morning, he might find certainty of life. And he must be vile indeed, or wretched indeed, who does not love life and long for its continuance while youth and health are still with him.

So Senn welcomed conversation, was glad when it wandered away from the subject of Constance Craig, and watchfully wondered at Prier and his purpose, and thought bitterly in the pauses of the conversation of his own probable—and possible future.

"And so," continued Senn, after a considerable pause, "I think Mrs. Senn will not speak of my crime until you do, and then——"

"Well ?"

Senn smiled.

"And then she will dispute you," he asserted.

Prier pondered over that proposition for some time; the thought was evidently new to him, and was as evidently unpleasant. To think one has another man in his power—fully in his power—and to have his intended victim himself point out an unthought-of avenue of escape, must be exceedingly disagreeable—perhaps as much so to a detective who means to do nothing unjust and wants no advantage which is unfair, as it would be to a desperate criminal.

"Well," said Prier, at length, "you are certainly a cool one. You are the greatest rascal it was ever my forture to meet—or the greatest fool. Seriously, I did not expect you to sign that paper. Frankly, I have not meant to make your crime in connection with the bank public; I have reasons—but no matter. I will tell you honestly, however, that I had no doubt I could prove that you stole Donald Barron's money—*or that you say you did it*——"

"Which amounts to much the same thing."

"To much the same thing; yes, sir, to much the same thing. But now, I do expect you to sign *this*, and to sign it promptly."

And Prier pushed another somewhat lengthy document across the table to Senn.

Senn read it, and could have laughed for very joy. Compared with the former document it was so simple and so trivial. A man who did not quite understand it might find an excuse for putting his name at the bottom of so innocent and vague a document as that; one who knew nothing whatever of its meaning might find pardon in his own eyes for writing the lie of his signature to it. Only——

There is always an "only" or an "if" or a "but" written across the safe and the simple in temptation's path.

Only, the shrewdest, keenest and most merciless detective in America wrote it, and he has hung men on evidence whose beginnings were even more vague than that. This is the new confession which Senn was asked to sign:

"BOOMVILLE, MAINE, *November 9th*, 1870.

"TO WHOM IT MAY CONCERN: I, Gilbert Senn, being pressed to tell the truth regarding certain matters, do, in the presence of Mr. J. B. Prier, freely make the following statements:

"1. I have seen two rings which may be described as follows:

"(*a*) One of them is a seal ring; gold; the setting a heavy white stone, on which are engraved an anchor—a female head below it—and the letter "8' below that.

"(*b*) The other is an old-fashioned ring, the band of heavy silver; half of the setting, a blood-red brittle stone, is gone.

"2. I admit the fact of these rings having been found by Mr. Prier under circumstances which justify him in the conclusion that they have been for many years in my possession.

"3. I shall not deny, under any circumstances which may arise, that the rings mentioned have been in my possession."

"Will you sign that ?" asked Prier, persuasively, when Senn had finished his reading.

"I will not," answered Senn, "unless I am in some way compelled to do so."

"I shall not try to compel you," said Prier, gravely, "by the use of any force. I let you wrong me, since I knew the power which sometimes lies in fear, by believing that I might kill you. You have been in no danger; you will be in no danger if you do not yourself provoke it by resistance to such authority as I may have. Let me explain: Those rings were found by me on the floor of Donald Barron's bank, near the safe. They were not there when the bank closed on Saturday night, for the room was carefully swept by a boy at the close of the day's work, while you finished your work upon the books. They were there the morning after; they were there when I examined the bank, for I found them and secured them. Now you may sign the paper I have handed you, or you may let me try to prove that you know of these rings because you were the one who took the money from Barron's bank. You shall never have it to say that I have been unfair or underhanded; I have been frank and straightforward; I have proved myself a 'talkative detective' in very truth. But I am in earnest, desperately in earnest, and I tell you, Gilbert Senn, you have got to go into court and tell what you know of those rings."

"Suppose I say I know nothing of them ?"

"You'll have a chance to prove it; a jury will have an opportunity to compare your story with those of other men; twelve men will have an opportunity to decide upon its truth or falsity."

"I know nothing of *other people's rings;* I never saw *your rings.*"

"Sign the paper, or I'll brand you as a bank-robber."

"On my word of honor, I know nothing——"

"Bah! The word of honor of a man who can do what you have boasted doing. You know nothing of the rings—nothing? Do you know nothing of the murder ?"

Prier sprang up excitedly. He laid his hand on Senn's shoulder. His eyes fairly blazed.

"Do you know nothing of the murder ?" he repeated; "nothing? Let me paint you a picture—a picture such as you painted me. Listen, man, listen and look up: An innocent woman, young and beautiful; see her sleeping quietly; fearlessly; God's vengeance on the man who would disturb her." Senn groaned. Prier shut his teeth sharply and savagely together.

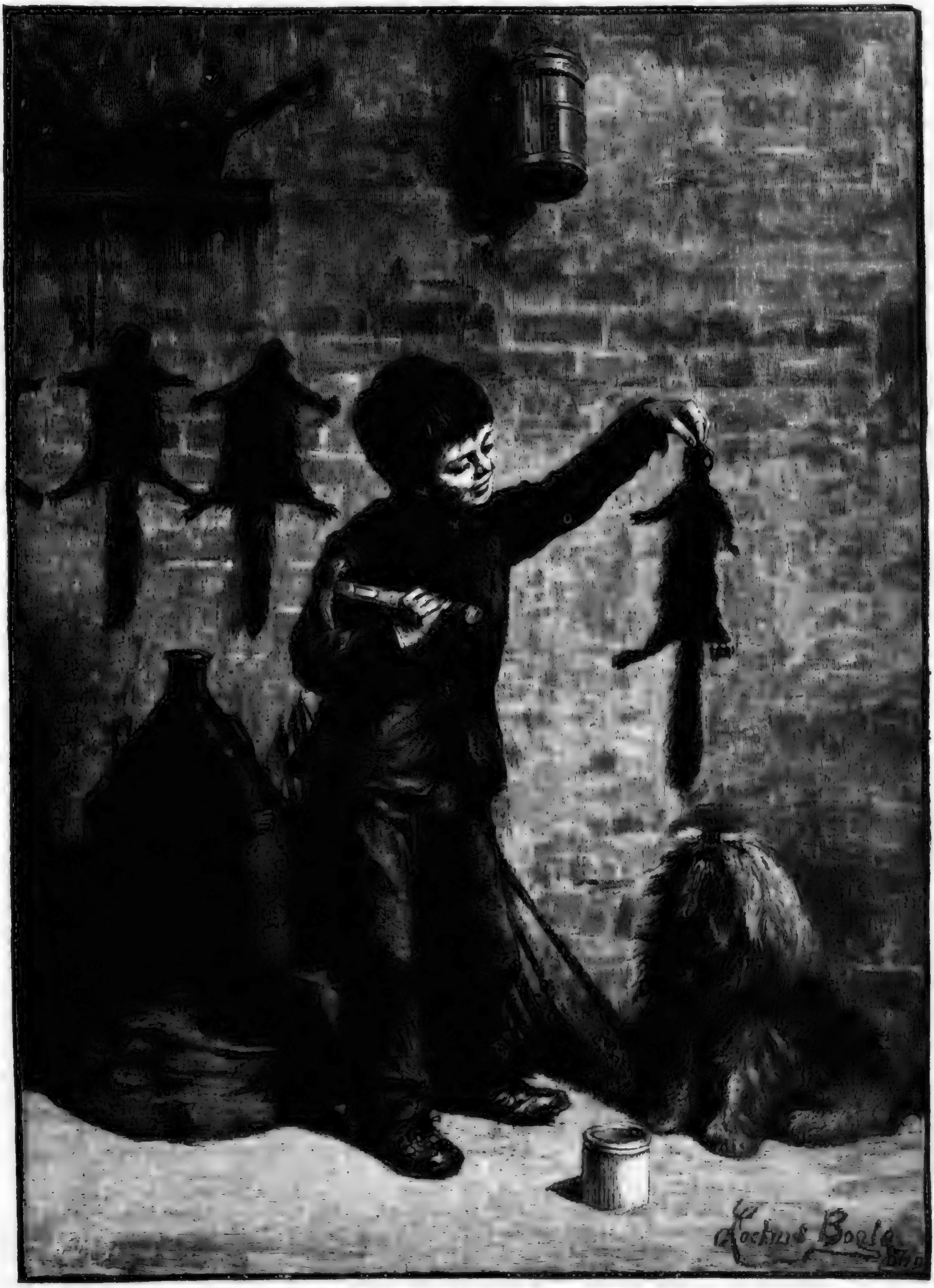
"A beautiful picture," continued the detective; "a very Eden come to earth again. But see! The serpent! A man creeps into the room. There is crime written all over his face—crime and fear. Why should he fear? The woman is weak—alone—defenseless; he is strong and active. She awakes. He is a coward. A shot may give alarm and bring help. A knife will leave a mark where its strength for evil falls, and he cannot run the risk of detection. He forces her back upon the bed; he covers her face with her own snow-white pillow; he—he—— I cannot go on—I—I cannot bear it——"

"For God's sake stop," cried Senn, excitedly; "*I* cannot bear it."

"I should certainly think not. Gilbert Senn, I arrest you for the murder of Constance Craig!"

Prier sprang upon him, handcuffs in hand; Senn threw him back. Prier drew his pistol; Senn wrenched it away and tossed it across the room. Prier's casket slipped from his pocket, fell upon the table, struck in such a way as to open, and its contents fell out.

Two rings! A gold ring and a silver ring! The gold



THE YOUNG NATURALIST.—DRAWN BY L. BOGLE.

ring set with a broad, flat, white stone, on which were engraved an anchor, a woman's head, and the letter "S." The silver ring still holding half a broken blood-red stone. Those were the treasures which Prier had kept with so much care. Those were the talismans by whose aid he hoped to plant the gallows across the path of the "somebody" he was determined to hang.

There is wisdom and unwisdom.

Men in an emergency are quite as likely to be unwise as the opposite.

With a chance to be wise, Senn threw the chance away. He turned the table over, letting the rings fall to the floor with the broken dishes, and tried to crush them under his heels.

Prier reached up and turned out the gas. The room was in utter darkness. He meant to save his rings, at any cost.

Then both men started for that part of the room where Prier's revolver had been thrown. Half way there, they came in contact with one another. A furious fight ensued in the darkness, and for a little time the result seemed in doubt. Both were strong; both were so desperate with anger that they did not stop to consider consequences; each was in a mental condition very favorable to the sudden decease of the other if any advantage put that other in his power; if either one had happened to put his hand on that pistol, while the fight in the darkness was going on, I am very much afraid he would have –*spoiled this story!*

Senn, pulling fiercely at Prier, much as the pictures represent the lion pulling the buffalo down, was unfortunate enough to slip; Prier's clothing gave way; Senn fell so hard that he was completely stunned for a moment. Prier lighted a match, partly to see what had happened and partly to aid him in determining what should happen next; his pistol and his handcuffs were both upon the floor and both in plain sight; one at his right and the other at his left, each a couple of yards or so distant. Fortunately, in every sense, his eyes fell upon the handcuffs first; he fastened them upon the wrists of his dazed foe, so that when Senn had recovered his senses he found himself a prisoner.

Prier lighted the gas. He got his pistol; he picked up his rings and restored them to the casket and the casket to his pocket. By that time, there were a dozen of the alarmed inmates of the hotel at the door of Prier's room clamoring for admission.

Prier turned to Senn.

"I shall let these men in in a half-minute," he said, in a hoarse whisper, "and you've got to choose very promptly. Will you sign, or shall I prove that you robbed Barron's bank as a step toward proving that you killed Constance Craig."

"I'll sign," said Senn, sullenly, and Prier freed his right hand long enough for him to do so.

Prier folded the paper and put it carefully into his pocket. Then, as he moved toward the door to let in those who were vigorously pounding there and demanding admittance, he said:

"Donald Barron died a natural death; Constance Craig was murdered. The murderer of that woman shall hang, unless I find the grave of the guilty wretch lying across the path I am following. Whoever can throw light upon that murder, must and shall do so. Whoever robbed the bank in this city can explain the fate of Constance Craig. Confession or accusation, as the case may be, I shall wring a full and explicit statement from the man who stole Barron's money, whoever he may be. *You say* YOU *did it!*"

CHAPTER IX.

THE WORLD VS. THE JURY.

THE strange news flew from tongue to tongue in the early morning: "Gilbert Senn is arrested for murder"; "Gilbert Senn is accused of having killed Constance Craig"; "Gilbert Senn resisted the officer who came to arrest him."

No one knew who Constance Craig had been, where she had died, nor how, nor when, nor why. No one knew whether she had lived in America, or half way round the big world from Boomville. No one knew whether it was pistol-shot, or knife, or poison which had taken her life. No one knew whether she had been young or old, handsome or homely, good or bad. No one could say whether Senn had killed her because she wouldn't be Mrs. Senn, killed her because she wanted to be Mrs. Senn, or killed her for some such impersonal reason as the love of money. No one knew anything about the matter—except that Gilbert Senn killed her! The citizens of Boomville were very few indeed—outside the churchyard which held "the silent majority" —who were not quite satisfied in their own minds that Senn was guilty. They had little reason, of course, no more than the accusation which is all too often taken as proof, when men fall—or are said to. But, after all, they had known Senn, sober, industrious, honest, for *only ten years;* behind that knowledge lay a past of which they knew as little as—as little as they knew of Constance Craig. *Only ten years!* Can the leopard change his spots? Can a man who has made crime a trade live a consistent life for *only ten years?* Can a man who has been a true and noble gentleman for ten years deliberately go down to a level deeper than hope has ever sounded or salvation reached? Can he?

Reader, with all this mystery and doubt before you, do you *know* the manner of man Gilbert Senn was? Did God ever set the wrong face, the wrong sign and seal of character, over any human soul?

The citizens of Boomville, with exceptions, of course, were quite certain that Senn was guilty, and that Prier was a hero—a hero and a wonderful man.

With exceptions, I said.

There were exceptions.

Donald Barron was not certain that Gilbert Senn killed Constance Craig. Poor old Donald Barron, with his white hair, and his cold, sunken face; he had no word to say about it all—no word of comfort for his daughter, coming into the room where he lay in the silent dignity of death, crying out in hot-eyed, tearless pathos that her lot was more that she could bear.

Walter Aldrich did not believe that Gilbert Senn killed Constance Craig. "I—I can imagine how a man might do it," he said, passionately to himself, but he was thinking of the treasure of Elsie Barron's love, and of the way in which Senn had made her his wife, when he said that. For Aldrich had not heard of Senn's connection with the robbery; he had no idea that Senn had done aught else than win her through her affections; and the blessing of Elsie's love seemed so great—so far beyond any earthly good of which he could think—that he could half forgive the treachery which he believed had been quickened into being by a desire as great as his own.

"I know he did not—could not—do it," he said, when he thought of the crime of which Prier had accused his once friend. And whatever else he might or might not think—however much his thoughts dealt with a strange past—however much with a dark and clouded future—however bitter they might be—he had no more to say that morning, even to himself. For marriage: "I—I can imagine how a man might do it." For murder: "I know he did not—could not—do it."

Elsie Barron-Senn was sure that Gilbert Senn was guiltless. She had no very good reason for her belief, perhaps. She would have given a woman's reason had any one pressed her for a reason at all. Gilbert Senn was guiltless, because—with a pause—*because* he wasn't guilty! Woman's reason! Woman's wonderful instinct! Higher than logic, or the needs of logic! We may laugh, scoff, scorn; we may say our measures cannot determine it, nor our systems explain it; no matter. The man who has ever had a woman's love or a woman's friendship knows that she has a power of prescience—a faculty of unreasoned cognition—which is as true as existence, and as inexplicable. Elsie Senn felt very sure that her husband had not killed Constance Craig.

And J. B. Prier? What of him? Elsie Senn might have found a new reason for her negative belief, and a better one from a mere masculine standpoint, in Prier's affirmative one, than she yet had, if she could only have known that Prier *knew* that Senn must be guilty. The truth was, Prier was very doubtful. He would have told you that he had arrested Senn "on suspicion." "On suspicion" is a very convenient term.

So, you see, Senn had a very fair minority of doubters.

Let us count them:

Walter Aldrich, whose promised bride he had taken from him.

Elsie Senn, whom he had forced to marry him.

J. B. Prier, the great detective who had arrested him.

And—and——

I am sure there were four.

And I am sure I did not count dead Donald Barron.

And—and—I remember now:

Lurline Bannottie knew that Gilbert Senn did not kill Constance Craig!

* * * * * *

The trial of Gilbert Senn came on very speedily. Mr. Prier urged the authorities forward in every way possible, and was angry and impatient at every delay. Senn or his friends might, undoubtedly, have secured a postponement for a time, lasting at least until the "nine days' wonder" which his arrest had caused, had in a degree subsided. But Senn sat in his cell with downcast eyes and drooping form, evidently full of a dull apathy, and careless of his future and his fate. And where was the friend who cared to help him?

He learned from the jailer the popular conclusion which had been reached regarding him. He had money; Mr. Barron's business had suffered; he had offered to help the banker past the crisis in his affairs on condition that Elsie became his wife; Mr. Barron had consented; the girl had been forced to yield; that was the story which was generally believed in Boomville. Senn cared little for what they said about him; he was willing they should say what they would—believe what they would—so they did not learn the real reason for Elsie's marriage with him; and, since his arrest and incarceration on the charge of murder, he was not so particular to have his connection with the bank robbery kept a secret as he had been.

The jailer not only told him all about the conclusions at which the citizens of Boomville had so easily arrived, but he informed him that there were many who believed that the money he was supposed to have had had been stolen from murdered Constance Craig.

Senn heard of Donald Barron's burial. To look at the prisoner's face, one would have found it easy to believe that he had loved old Donald Barron—loved him in spite of any wrong he had done him and his house. There were surely tears in his eyes as he looked at the jailer and listened to his narrative; there was surely a weak quaver in his voice as he replied. But he heard of Elsie's wild grief, and he smiled; Gilbert Senn was not in love with the woman who had cost him so much—so much—and who was likely to cost him more.

The trial came on speedily, as I have said. One day Gilbert Senn knew that he had been indicted; that night he knew that to-morrow he must face trial. But he barely looked up while he was told of what was to come; he let his head fall forward upon his breast again—he looked down and not up—it seemed as though he had forgotten his danger and forgotten what had been said.

The jailer had grown to like Gilbert Senn. It may be that the authorities and instruments of the law's vengeance always learn to like those of their prisoners who are quiet, docile, orderly, and who cause them no extra care nor alarm; it may be that men always like those with whom they become familiar. I do not know. I cannot say. It is certain that the jailer had learned to like the accused. Perhaps because the fellow was his prisoner, and under his control. Possibly—because the man was Gilbert Senn.

"You have no lawyer?" asked the jailer.

"No. I suppose the court will assign me one."

"You have made no arrangements for having witnesses called in your behalf?"

"No; I shall need none."

"Surely you will not plead guilty?"

Senn raised his eyes then. He had not looked up before during the interview. There was a look upon his face which seemed a stranger there.

"I shall plead 'Not guilty,'" he said, "for I *am not guilty*. But I am outside hope—outside pity—outside any chance for a future. They may hang me; no matter, I—I——"

His gaze was no longer fixed upon the jailer's face. He had given up hope, no doubt.

There was a letter for Senn that evening.

"Mrs. Senn's companion, or friend, or whatever she calls herself, sent it," said the jailer.

Gilbert Senn had never seen her, except as she walked in to see him married, and walked out and intruded herself into the carriage with him and his newly wedded wife. To him she was an unknown quantity in the problem of life—a vailed figure, with graceful movements, but with an utter blank where the woman's face should be. He had little interest in her; he believed she had worked for him, rather than against him, when Elsie's fate hung in the balance, weighing itself against her father's future; he scarcely knew why he placed her on that side in the conflict—he did place her there, almost instinctively. She probably knew nothing regarding his connection with the bank robbery; she had only urged Elsie to avert, by her consent, a disaster of which the adviser understood neither the nature nor the remedy.

So Senn had little interest in his wife's companion. What interest he had was connected with Elsie. He opened the letter very leisurely and very indifferently.

There were three bits of paper within. Senn read them in order. This was the substance of the first, dated that day, and evidently written by a person laboring under intense excitement:

"MR. SENN: I shall offer neither explanation nor excuse for what I am about to do. If my help and my warning are of use—it is well; if they are not—it is well. Walter Aldrich will come to see you this evening, and I know what his errand is; no matter how I know; it is enough that I do know.

"Mr. Aldrich has not been here since your marriage. He has sent one note to Mrs. Senn—*to your wife.* He may have sent more; I have reasons to think he has not; no matter what my reasons are; I have them.

"I inclose the note Mr. Aldrich sent. I inclose a copy of the letter Mrs. Senn sent in reply. 'A word to the wise' is all I intend. LURLINE BANNOTTIE."

It was treachery's hand which had sent these letters, these communications between Walter Aldrich and Elsie Senn, and the strange letter of explanation which did not explain. Treachery and cunning were written in every line—not concealed nor hidden, but paraded and boasted of. The letter hurt Senn; had he been a free man it might have hurt Miss Lurline Bannottie as well. But——

What does the proverb say?

"Drowning men catch at straws!"

"Straws!" No more. No less. The word is unqualified. I suppose it would include *rotten* straws as well as others.

Senn put Miss Bannottie's letter—the first message from the outside world which had come to him without even a semblance of friendliness in it—in his pocket.

He opened Walter Aldrich's letter next.

It was not a long letter. It did not say much. If, however, the writer had known that *Mr.* Senn would see the letter to *Mrs.* Senn, it might have been shorter and have said still less:

"BOOMVILLE, *November 9th*, '70.

"MRS. SENN: The gossips are very busy with your name and mine since your marriage and the arrest of your husband. They say, among other things, that you were not a willing bride—that your marriage was forced upon you, or that you were unfairly influenced. I confess that I did not think so this morning, though I thought you should have known me too well to think that I would hold your promise binding if you found some one for whom you cared more than for me. I do not know what to think to-night; will you help me to think aright?

"Are the gossips right? Are they wrong?

"Are you happy, despite the cloud which now rests on the character of the man whose name you bear? Or are you miserable?

"I love you still. I always shall. If your marriage was not of your choosing, there is hope for divorce. Let me know the truth; let me know how much help you need—how much hope I may cherish. Ever yours, WALTER ALDRICH."

Gilbert Senn tore Aldrich's letter into fragments, and tossed them aside.

He opened the copy of Mrs. Senn's reply:

"BOOMVILLE, *November 9th*, '70.

"MR. ALDRICH: I have no explanation to make regarding the causes which led to my marriage with Mr. Senn, nor shall I ever have. Regarding that matter I shall do no more than assert again the fact with which you are already familiar. *I am the wife of Gilbert Senn.*

"Talk of divorce is utterly useless in my case; I shall take no legal steps toward removing the bonds which I voluntarily assumed. You must never hint at such a matter again, either by letter or in person.

"I shall be glad to see you at any time—as a friend. If you come, you must remember that the past is a forbidden topic while Mr. Senn lives. Should I outlive the man whose name I bear, and should you desire to say again to me the most pleasing things in your letter, you will find the widow ready to hear that which the wife may not listen to. Until then, I am no more and no less than

"Your sincere *friend*, ELSIE BARRON-SENN."

Senn tore up that letter also, and scattered its fragments as he had scattered those of the other.

"A love letter in disguise," he said, bitterly; "and what a letter! A letter worthy of the writer—worthy a fiend! A bid for my blood! A premium on my death! She cannot bring herself to think of *divorce;* she cannot go through the labyrinth of legal ways to freedom and love; but she can go—and go gladly—across my grave!"

And Senn's judgment was good—very good. It was a letter worthy a fiend, good reader, and a letter worthy its writer!

The jailer opened the door. Senn was sitting in his old disconsolate, drooping mood again. He had destroyed all the letters, but he still had them to think about.

"A visitor for you," said the jailer.

"Yes. Let him come in."

Walter Aldrich entered the cell.

Senn did not look up. Neither one offered his hand to the other.

"I have come to offer my legal services in your defense. I understand you have secured no lawyer as yet. Will you give me the privilege of standing between you and the law's vengeance?"

Senn did not look up. He muttered something to himself, far too low for his visitor to hear:

"If she outlives the man whose name she bears, and you desire to say again the things in your letter which she found most pleasing, you will find the widow ready to listen to that which a wife my not hear. Well—well. And so you dare not—dare not—— O God! Have I mistaken him so? After all, a—a—— Such a traitor as that would deserve no better." He spoke aloud: "You may defend me."

"What will be your line of defense?" asked Aldrich.

"You are the lawyer," replied Senn; "how should I know?"

"Don't be foolish. You will plead 'Not guilty'?"

"I am not guilty."

"You will have witnesses?"

"I know of none."

"You signed some paper which Prier will use?"

"I did."

"If he threatened you, you may decline being bound by its terms."

"I shall not deny my signature. I shall admit all I signed, and take the consequences."

"I shall study this case carefully, as carefully as the information at my disposal will allow."

"Thank you."

"But I may fail."

"Yes; you may. Good-night."

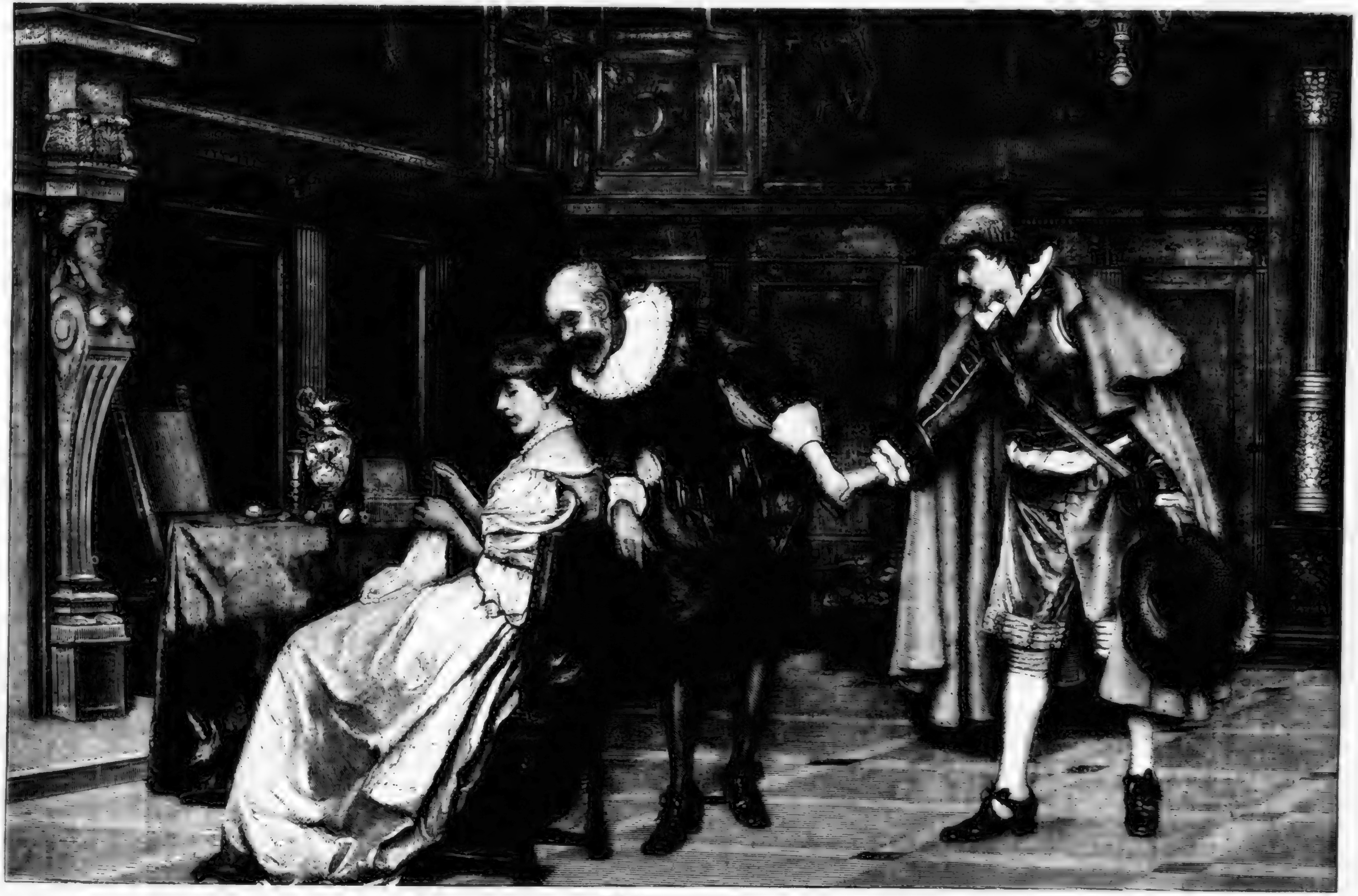
"Good-night."

Senn did not look up until Aldrich was gone, not until the jailer had shot the heavy bolt into its place in the door of his cell. Then he sprang to his feet, dashed himself against the iron door, and wept as though he were a broken-hearted child.

"Oh, Aldrich, Aldrich," he cried, "how can you? how can you? Why did you not kill me that day in the bank? Why were you not brave enough to take my life with your own hand? Or, better still, why did you not leave me to my fate under the heavy engine-wheels, ten years ago?"

* * * * * *

Gilbert Senn was brought into court. He was heavily ironed. He was well guarded. There had been some talk which had worried the authorities, weak, foolish, irresponsible, talk, of course, but even cowards and fools may do mischief which the wise and brave can never undo. Senn's guards were watchful—very watchful—and a close observer would have noticed that they watched Senn less than is usual in the case of a man charged with a capital crime. They took off his handcuffs as soon as he was fairly inside the court-room.



THE RECONCILIATION.

XUM

They evidently half expected that something serious would happen. They meant that he should have a fair chance for his life if anything did happen.

But Senn was taken quietly, and without difficulty or interference, to the prisoner's place. He had nothing more serious to face than hard looks, cold—stern—unsympathetic. Perhaps because "it is the unexpected which always happens"; perhaps because those who talk most bravely are usually cowards at heart.

But Senn did have a cold welcome—a very cold welcome. There were men in the court-room whom he had befriended, who now looked at him with hate or distrust—or did not look at him at all. There were men and women who had known him for long years who had let a few days of doubt and need outweigh all of his past which they knew. There was little of kindness or encouragement for him anywhere, in any face, as he entered the room.

Naturally enough, he looked for certain faces; naturally enough, in his terrible extremity, it was individual thought and feeling which he desired to read in the countenances before him; naturally enough, for the great crowd, as a whole, he cared nothing.

The first person upon whom his eyes rested was his wife. Elsie Barron-Senn was pale, very pale, and looking even whiter than she really was because of the deep mourning which she wore. She looked straight into Senn's eyes as he came up the aisle between the crowded seats, but she gave him no smile, no nod, no look of recognition.

I think her haughty indifference hurt him. I am not sure that a smile, or any other token of interest, would not have hurt him more. Senn said nothing, not even to himself; let us not try to interpret his thoughts as he looked squarely into the eyes of the woman who was joined to him by bonds which could not be broken until "so long as ye both shall live" should be a thing of the past.

It was a relief when his wife let her vail fall between him and her beautiful, pale face.

Walter Aldrich was the next one selected by the restless eyes of Senn from among the many in the crowd. He rose as the prisoner nearly reached the place to which he was being conducted, and said a few quiet words of direction—to the guards. His face was as pale as Mrs. Senn's had been; he looked at Gilbert Senn, but he spoke no word and did not appear to see him. Senn was given a seat. Aldrich took a seat near him, but he turned away his head.

Senn looked anxiously over the assembled throng. There were faces which he missed. He could scarcely realize that he should look vainly, for evermore, for the face of good old Donald Barron. "Does he know? Can he see? Is there a smile on his face, up in heaven, for me—even for me?" he whispered to himself. But faith could not reach high enough, imagination was not strong enough, to compass a task such as his agonized question had set before his mind and soul—his brain and heart. He only thought of the grave and of death and of decay, when he thought of Donald Barron; he shivered in the overheated court-room, as he thought how cold and heavy were the clods which rested that morning on the pulseless heart of the man whose face he so much missed.

Gilbert Senn looked for Miss Lurline Bannottie. There was no lady near Mrs. Senn, though he had expected to see the two there together. He had never seen Lurline Bannottie's face; he had never heard her described; he did not know whether she was light or dark; he scarcely knew—though he was conscious that he ought to—whether she was short or tall, stout or slender.

But Gilbert Senn had a belief that he would know her, know her under any circumstances and wherever he might see her—this unknown woman who had written him so strange a letter of warning, and who must be a peculiar sort of friend to her in whose home she lived. Senn looked eagerly, anxiously, feverishly; there were many women present—young and old, pretty and plain, women who were merely curious—women who were merely indifferent—women filled with that cruel thirst for blood which is a remnant of the days when our ancestors were a disreputable horde of prehistoric savages. But among them all Senn did not find the face which quite filled his ideal of Lurline Bannottie.

He found the face of J. B. Prier, the eyes looking as though they were gazing deeper than the surface and reading his soul, and he—he alone of all there—he, whose accusation he had to face and whose skill was to be made to prove him red-handed if skill could do it—he had a smile for him.

Another look for Miss Bannottie, who could *possibly* smile at him also.

A vain search!

Miss Lurline Bannottie was sick that day. Not very sick. Not sick enough to need a physician. Only a headache—a nervous headache—or something of that sort. Only something which kept her away from the court-room, something which kept her from the side of her dear friend Elsie Senn, something which demanded the utmost quiet and freedom from excitement. Not serious. Oh, no. Not serious if she could be left to herself, and to undisturbed repose. A sudden shock, a subpœna as a witness in the case of The State *vs.* Gilbert Senn, for instance, might have endangered her life!

So Senn came to his trial without knowing whether her welcome would have been a smile—or a stare.

He came to his trial with only one kind look—and that from the man who had sworn vengeance upon the murderer of Constance Craig.

Perhaps it had not needed the fact that he had waived a preliminary examination; possibly it had not been necessary for him to be committed without bail. Or, it may be that these two facts had had weight. Be that as it may, an anxious crowd was waiting for the trial of Gilbert Senn.

Waiting to know who Constance Craig had been; waiting to know where she lived, how and when and why Senn killed her. Beyond those facts—why have a trial? Under the circumstances—why have a jury? The multitude scoffed at the forms of law, at its exactness—its dignity—its delays.

For the question had been settled.

The World had decided that Senn was guilty.

CHAPTER X.

THE TRIAL BEGINS.

It is fortunate, whatever may be said of the Jury System, that The Jury desides momentous questions over which The World may wisely or wickedly have stumbled. The legal light which is focused upon the jury-box has an illuminating power which the spectator does not always adequately appreciate. Guilty, a man might dazzle his fellow-men with his audacity, and escape by the very boldness of his guilt; innocent, he would find a greater degree of safety in the searching scrutiny of twelve honest men, sworn to do their duty, than in the shifting partisanship of an irresponsible and prejudice-blinded populace. If law's *raison d'être* be justice, then The Jury must remain—The World must bow in submission.

It took some time to secure a jury in Gilbert Senn's case, for there were few who had not talked about it, few who had not formed and expressed opinions.

But it is undoubtedly always true that twelve men can be found who know little enough of a given case to qualify them to act impartially. They found a jury for Senn; Senn heard them sworn, listening himself in a sort of indifferent stupor, and feeling as though he could not be concerned in the matter himself—feeling as though it must be some one else whose life was in danger—feeling a vague and impersonal sort of pity for the luckless wretch against whom the powers of law were about to be invoked.

The Winter sunshine fell into the room. Outside, the day was beautiful. Beyond this room there was life and freedom and honor—surely he could not be shut out from it all for ever—surely it must be a dream, a bad dream.

But no! Freedom and honor belonged to the dream; the horror all about him belonged to the real.

And he awoke from his day dream suddenly——

They were reading the indictment.

It did not take long. There was not so much of detail as he would have been glad to hear; when a man must face a horror like this it is a comfort to know—in all respects—just what the horror is.

The indictment was read, its statements of names and places and dates being given with great particularity. He glanced curiously at Aldrich. The lawyer neither looked up nor moved. Senn's face took on a look of proud despair.

Then, almost before he knew what he was doing, some one had assisted him to his feet. Some strained, harsh voice, which he could scarcely realize was his own, so changed was it, had faltered "*Not Guilty!*" and he was sitting in his place again, his face buried in his hands, trying to shut out the sight of the hateful multitude who waited for his doom.

The prosecuting attorney arose and briefly explained the case. The murder took place more than ten years before, and in a country house some fifty miles distant. The murder was peculiarly atrocious from the fact that the guilty man had so planned and executed his crime as to leave the question of the manner of his victim's death in doubt.

The prosecution would admit that there were those who had honestly believed that Constance Craig died a natural death; the prosecution presumed such witnesses would be introduced by the defense. The prosecution desired to state frankly in the outset that they had only circumstantial evidence upon which to rely; they admitted that they were unable to assign an adequate motive for the commission by him of the crime of which Gilbert Senn stood accused; they had no proof to offer tending to show that ill-will or revenge had anything to do with the horrible deed—indeed, there was no reason for thinking that Gilbert Senn had been acquainted with Constance Craig prior to the murder. No evidence would be introduced tending to show robbery in the ordinary and usual sense of the term; it had been the intention of the murderer to make it appear that death was not the result of murder, and one little article, whose presence in the room of death would have been evidence of a struggle, had been removed; this article was of little value; it would be shown that Gilbert Senn had had it in his possession. The facts, then, which the prosecution would establish by the testimony of reliable witnesses were these:

"1. The death of Constance Craig.

"2. The fact that her death was accompanied by a severe struggle, which took place while a person who had never confessed his presence there was in the room with her.

"3. The fact that an article belonging to her had been removed at the time of her death.

"4. The fact that the murderer had carried a small article of his own into the room.

"5. The fact that the article stolen from dead Constance Craig, as well as the other article to which reference had been made, had been traced to and found in the possession of Gilbert Senn.

"6. The fact of the presence of Gilbert Senn near the residence of Constance Craig not long before the murder.

"7. The fact that the general character of Gilbert Senn at th time of the murder of Constance Craig was such as to make th theory of murder or any other infamous crime a reasonable one in his case.

"8. The fact that when arrested he had attempted to destroy the articles on whose silent evidence the prosecution largely relied to prove his guilt.

"And now," said the prosecuting attorney, "there is one thing more to be considered before we call our witnesses. I hold in my hand a document, dated in Boomville, Maine, on November 9th, 1870, in the handwriting of J. B. Prier, as I believe, and signed with the name of Gilbert Senn. In it Mr. Senn admits the finding by Mr. Prier of two rings, duly described, under circumstances which justify the conclusion that they had been for many years in his possession. Mr. Senn pledges himself, in this document, not to deny the fact of the rings having been in his possession. Now we shall introduce this document in evidence; we shall find little or no difficulty in proving that the admissions made by Mr. Senn are true; we shall prove them, if we are compelled to do so. There exists, so Mr. Prier tells me, a tacit compact between Mr. Senn and himself, however, that the circumstances under which they were found shall not be investigated. Of course Mr. Prier is only a witness for the State in this case, and equally, of course, the State is not bound in any way by this implied personal contract between him and the prisoner. I wish, however, to regard this agreement, if it is possible. I ask, then, whether the defense will admit the genuineness of the signature and the truth of the admissions made? or whether they prefer that we should proceed to prove the facts therein stated?"

Walter Aldrich turned to his client.

"Deny the signature; refuse to make the admissions; claim that you signed under the influence of fear; let us make a bold, hard fight, here and now," he whispered.

Senn shook his head.

"It's your best chance," pleaded Aldrich, in an undertone, "and it may be your only one."

Senn looked him squarely in the face—squarely and a little indignantly.

"You know better than that," he said, firmly; "I shall not deny my signature; I shall not deny the truth of my admissions there made; if I cannot tell the truth and live, I can, at least, tell it and die."

Aldrich turned from his client, and toward the judge, the jury, and the prosecuting attorney.

"We admit all that is asked," he said, sullenly.

"That is not enough," said the prosecuting attorney, blandly, rising to his feet; "that is not by any means enough in so important a case as this. I ask to have the prisoner sworn."

"You wish to question him?" asked Aldrich.

"I do."

"On this matter?"

"Certainly."

"And on nothing else?"

"Nothing."

"It's terribly irregular, isn't it?"

"We will not press the matter. We will prove——"

But Senn was already upon his feet.

"Do as you like," said Aldrich, savagely.

So Senn was sworn.

The prosecuting attorney questioned him.

"You have seen and read this document?"

"I have."

"Is this your signature?"

"It is."

"Do you admit the accuracy of the statements contained in it, and will you abide by the pledge given?"

"I will abide by the pledge given. I admit the substantial accuracy of the statements made."

"You speak of the 'substantial accuracy' of the statements. Please explain yourself? State briefly what you admit?"

Senn raised his head a little higher; his form was more erect than it had been; there was no longer any need for those sitting in the far-away corners of the room to give breathless attention in order to hear. The prisoner's voice was low, but firm and strong, and it filled the room with its power.

"I have seen the rings which are described in the document. They were found under circumstances which justify the conclusion reached by Mr. Prier. It would be useless for me to deny that they have been in my possession, and——" His voice broke. He fell into his seat as though he had been shot. He covered his face with his trembling hands.

The audience drew a long sigh of relief.

The jurymen looked at each other in interested amazement.

Mrs. Senn, without raising her vail, bowed her thanks to some one who handed her something she had let fall.

Prier smiled, grimly.

Aldrich did not move or look up.

A gray-headed lawyer nudged the young law-student who sat next him, and whispered:

"He's signed his own death-warrant!"

The prosecuting attorney smiled, and rubbed his hands softly over one another.

"That is all," he said, pleasantly; "that will do. We are ready to examine the witnesses now. Will Matilda Webb be sworn?"

Matilda Webb came forward and was duly sworn. Her testimony, condensed from the form of questions and answers, was, in substance, this: Her age was thirty years; business, that of a house servant; she was in the employ of Constance Craig at the time of that lady's death; was twenty years of age at that time; it was her duty to assist the housekeeper in such ways as that person might require. The indictment charged that the murder had taken place during a certain night. She remembered that night well. It was a Monday night. She spent the night with friends, three miles away. She returned home quite early on Tuesday morning. It was certainly not later than eight o'clock when she reached the residence of Constance Craig. There was no one stirring in the house. She hurried up-stairs. She went into her mistress's room. She found her dead. She ran downstairs. A team happened to be passing. She gave the alarm and sent for help. She remembered a peculiar ring which her employer had owned; it was a silver ring, set with a red stone; she saw Constance Craig have it on her finger when she went away; it was not there when she found her dead in her room; she had never seen it since.

Cross-examined, Miss Webb added these facts: There were three servants employed by Constance Craig, a young man for out-of-door work, the housekeeper and herself inside. The young man was her cousin. He spent Monday night at the same house where she did. He was dead now; was drowned about five years after the time of the murder. The housekeeper was absent during that night; she had been absent for a week prior to the murder; she did not return until after the funeral of her mistress.

Redirect examination: Miss Webb had always had the highest opinion of the housekeeper; the housekeeper had been a very old lady; she had been dead now for several years; Miss Webb had herself attended her funeral. Miss Webb had been engaged to the young man who was accidentally drowned; no question regarding his character and integrity had ever been raised. Miss Webb had been on the best of terms with her employer; never had any trouble with her; had permission to be absent. The witness knew that Constance Craig wore the silver ring with the red stone regularly and constantly; she did not know where she obtained it, nor whether it was a gift.

The prosecution called Dr. Oscar Welton:

"I am a physician and surgeon; I am a regular graduate in medicine; I have practiced my profession for over thirty-five years; I am sixty-one years of age; I have testified on several trials in this State as a medical expert. I was the regular medical attendant of Constance Craig, if it is correct to say she had any; I was always called when she needed a physician; she was usually well; I attended her but seldom. I was the first physician at the house after the discovery of the murder; I was the first person who touched or moved the dead body after she was discovered by Matilda Webb. Constance Craig did not die a natural death. I insisted from the first that she was murdered. She was smothered to death. There was no other post-mortem examination of the body than was possible without the use of instruments. I feel certain that she was killed by the placing and holding over her face of something which prevented the access of air to her lungs.

Dr. Oscar Welton was cross-examined:

"I was not the only physician called in in connection with this case; there were two others present; one was an older man than I; each had had advantages, in education and in practice, equal to mine. One of them, the young man, agreed with me; the other insisted that the death was a natural one. Neither of the other doctors is living; at present there are only two persons, Miss Webb and myself, to be found who were there that Tuesday morning." All this, of course, in answer to questions.

"Was a post-mortem examination proposed, and if so, by whom?"

"I proposed a post-mortem examination."

"Why was none made?"

"The other physicians objected."

"On what grounds?"

"The reason, as I remember it now, had something to do with the probable wishes of surviving friends and relatives who had not yet been notified of the death."

"What did the physician who regarded the death as due to natural causes say was the immediate cause of death?"

"I do not remember. Perhaps he made no suggestion; I really cannot say."

"What sort of natural cause would produce death in such a case?"

"No natural cause in such a case. Constance Craig was murdered."

"You seem very certain?"

"I would risk my professional reputation upon it."

"A post-mortem was not a necessity, then?"

"No, sir; that is——"

"You proposed one?"

"I did, but——"

"Never mind; that will do," said Walter Aldrich.

"Wait a moment," said the prosecuting attorney; "I

TERESINA.—BY HÜNEMANN.

have a question or two to ask : Did *both* the other physicians object to a post-mortem examination ?"

"Yes, sir."

"And for the reasons you have stated ?"

"I so remember it."

"You told my legal friend a minute ago that an examination was not necessary. Will you state why you proposed one, that being the case ?"

"Simply for the satisfaction of others. I had no doubt whatever regarding the cause of Constance Craig's death. I do not see how any one could doubt that it was the result of violence."

"Do you remember whether all three of you remained in the house for a long time."

"Only two of us did."

"Which went away, the one who agreed with you or the other ?"

"The other."

"Why ?"

"I do not remember."

"I mean to ask whether it was the result of the disagreement, or because he had other duties elsewhere ?"

"It was because he had duties elsewhere ?"

"How long was he in the house ?"

"I cannot say exactly."

"Was it more than an hour ?"

"No, sir ; it was less than an hour."

"And how long were you and the other doctor there ?"

"Ten or twelve hours."

"Very well. You say you were certain Constance Craig was murdered: did you take any action based upon that opinion ?"

"We did. We notified the authorities. We telegraphed for a detective."

"For what detective ?"

"For Mr. Prier."

"And he came ?"

"He came."

"That is all," said the prosecuting attorney.

But Walter Aldrich had still other questions to ask :

"You do not see how any one could doubt that the death of Constance Craig was attended with violence ? Did you so testify ?"

"I did."

"Did not one physician doubt the theory of violence ?"

"No, sir, not exactly; he admitted that there had been a severe struggle ; he insisted that it was due to convulsive activity resulting from natural causes."

"I see. The oldest doctor, the disagreeing one, went away after a little, did he ?"

"He did."

"Perhaps he had a more extensive practice—with more frequent calls—than you had ?"

"Perhaps so."

"Did he ?"

"I do not know."

"What is your opinion ?"

"I do not know that I have data on which to base an opinion."

"What action did the authorities take ?"

"None."

"Why ?"

"Because they took sides with the oldest physician."

"The detective," said Mr. Aldrich, very slowly and very sarcastically, "no doubt took sides with the medical majority ?"

"He did."

"That is all," said Aldrich.

And the prosecuting attorney had no other questions to ask. Dr. Oscar Welton retired, having made about the impression that a capable, honest, simple man usually makes when he undertakes to follow a train of thoughtful truth under the guidance of the legal fraternity.

It is doubtless unnecessary to say that Dr. Oscar Welton had hurt the case of the prosecution, and hurt it badly ; half the spectators, counting out the judge, jury, witnesses and lawyers, would have voted him a fool, while the rest—with very, very few *scattering votes*—would have denominated him a clumsy liar. It is unfortunate that honest men *must* submit to the moral degradation of being "important witnesses." There was no way in which Oscar Welton, M.D., could show what an honorable record his had been as the servant of health and humanity ; there was no way in which he could prove that his younger friend had been a prodigy of learning and skill ; over the grave of the other older man there was a costly monument, covered with eulogy and regret, and one could no more show how little his opinion in the Constance Craig case should be regarded, and how little it was really worth, than he could go and write the hard, harsh truth "*Incompetent, obstinate quack,*" on the stately marble above his ashes.

As for the citizens among whom Constance Craig had had her home—as for the self-important petty country authorities—their opinions were possibly as valuable as those of the throng who had assembled to see Gilbert Senn put in peril of his life ; they were certainly no more so. Fixed and stable in belief—as the ocean is fixed ; following this way in a flood—that way in an ebb—as the sea follows the moonshine.

And look ! See ! The crowd once clamorous for the blood of Gilbert Senn has turned. Fortune's tide is flowing in for him once more. He holds up his head, and there are smiles of encouragement for him everywhere. There is a buzz of pity—a murmur of repressed applause—in the air. Those so sure, in the morning, that Senn killed Constance Craig, are sure now that she died a natural death. It is not alone what Dr. Oscar Welton has said which has turned opinion in this way—it is the way in which he has said it—it is the hesitation in his honest face, his great anxiety to be accurate—which has done much.

The prosecution had meant to prove so much by the testimony of Dr. Oscar Welton !

The prosecution has so lamentably failed to proved anything—has done worse than fail !

But wait !

The same waves which climb the crags when it is flood tide, go down into the dark sea again. The men whose opinions have changed once—may change their minds again. Human nature would be one tissue of folly, human action one gigantic farce, were not life—with its lofty ambitions and its bitter disappointments—so terrible a tragedy.

"J. B. Prier."

The great detective comes forward, the same grim smile upon his face which we have seen there before.

He raises his right hand.

"You do solemnly swear that in the case now on trial you will tell the truth, the whole truth, and nothing but the truth—so help you God !"

He bows his head reverently.

He pauses to look over the anxious faces before him.

And ——

The tide of opinion is turning again already !

(*To be continued.*)

A SLEEPLESS NIGHT.

The centre of this universe of stars
Is the poor human heart that feels its pain!
Nearer to its individual gain,
Its story personal of wounds and scars
Than all the far off-thunder of the cars
Of wheeling planets in the midnight's plain;
One moment's torture makes the pageant vain—
One tear the vision of th' Eternal mars.
Bound in a narrow, mystic ring of fire,
We live but when we suffer, and we touch
The real only when we suffer much;
All else is shadow. Ah! when hopes expire,
And to its source the stricken heart-blood runs,
My life to me is more than all the suns!

ABOUT HAWKS AND HAWKING.

"I know a hawk from a hernshaw."—*Shakespeare.*

Hawking, according to Beckman, was known to the Greeks and Romans, who no doubt greatly delighted in this pleasant and dexterous sport, now, alas! almost fallen into oblivion. It is certain that the Egyptians were well acquainted with the pastime; and the hawk was the avatar of Ra or Horus, their Sun-god; it is difficult, however, to determine the origin of the sport in England; it can only be absolutely traced to the reign of the Saxon monarch, King Ethelbert, in the year 760, when we have evidence of this sport-loving monarch sending to Germany for a brace of falcons. From this period hawking was a favorite amusement with all the "great lords and ladies" in England, and the birds were given every protection and care. In James I.'s reign we learn that Sir James Monson is said to have given $5,000 for a cast of hawks, which at once demonstrates their rarity and value in those days. In Edward III.'s time a law was passed making it a felony to steal a hawk; taking its eggs, even in a person's own grounds, was punishable with imprisonment for a year and a day, together with a fine at the king's pleasure—not much pleasure in that!

In former times the custom of carrying a hawk on the hand was confined to men of high distinction, so that it was a saying among the Welsh, "You may know a gentleman by his hawk, horse, and greyhound." And Peacham adds, "It can be no more disgrace to a great lord to draw a fair picture than to cut his hawk's meat." Even the ladies, at one time, were partakers in this gallant sport, and many are the pictures and statues which have represented them with hawks in their hands. The gentleness and speed of the hawk are proverbial, and it is on record that a falcon belonging to the Duke of Cleves flew out of Westphalia into Prussia in one day; and in the county of Norfolk "a hawk has made a flight at a woodcock of thirty miles in an hour." Some of the larger kind have been taught to fly at the wild boar and the wolf. If required for this purpose, the training, if the description can be relied upon, is most peculiar. When young they should be accustomed to feed from out the sockets of the eyes of a wolf or boar's head, the whole skin of the animal being stuffed so as to make it appear alive. "While the bird is feeding, the falconer begins to move the figure gradually, in consequence of which the bird learns to fasten itself so as to stand firm, notwithstanding the precipitate motions which are gradually given to the stuffed animal." The bird would lose his meat if he quitted his hold, and therefore takes care to secure himself. When these first exercises are finished, the skin is placed on a cart, drawn by a horse at full speed; the bird follows it, and is particularly eager in feeding; and then, when they come to fly him in the field, he never fails to dart on the first beast of the kind he discovers, and begins to scoop out the eyes. This goes to prove that the hawk is nothing if not imitative. The animal is then in such distress that the hunters have time to approach and dispatch it with their spears.

The French kings, besides potentates of several other countries, used to keep their falcons. The Duke of St. Albans is Hereditary Grand Falconer in England. St. Albans seems to have been greatly frequented for hawking. Shakespeare says:

> "Ride unto St. Albans,
> Where the King and Queen do mean to hawk."

At St. Albans, too, Caxton, the first printer, issued a work on hunting, hawking, and heraldry. There are many species of hawk, and Dame Juliana Barnes gives the number of different birds as fourteen, with a classification as to who the various kinds are for. An instance or two: The Gerfalcon; a Tercel of a Gerfalcon is due to a King (Tercel is the male bird); Falcon gentle and a Tercel gentle for a Prince; Falcon of the rock for a Duke; Falcon peregrine for an Earl; and so on. Other hawks are Merlyn, Hoby, Goshawk, Sparehawk, Murkyte, and Kesterel; this latter is said to be for "a knave or servant." The "Sore-hawk" is a hawk of the first year: so called from the French *sor* or *saure*—brownish yellow.

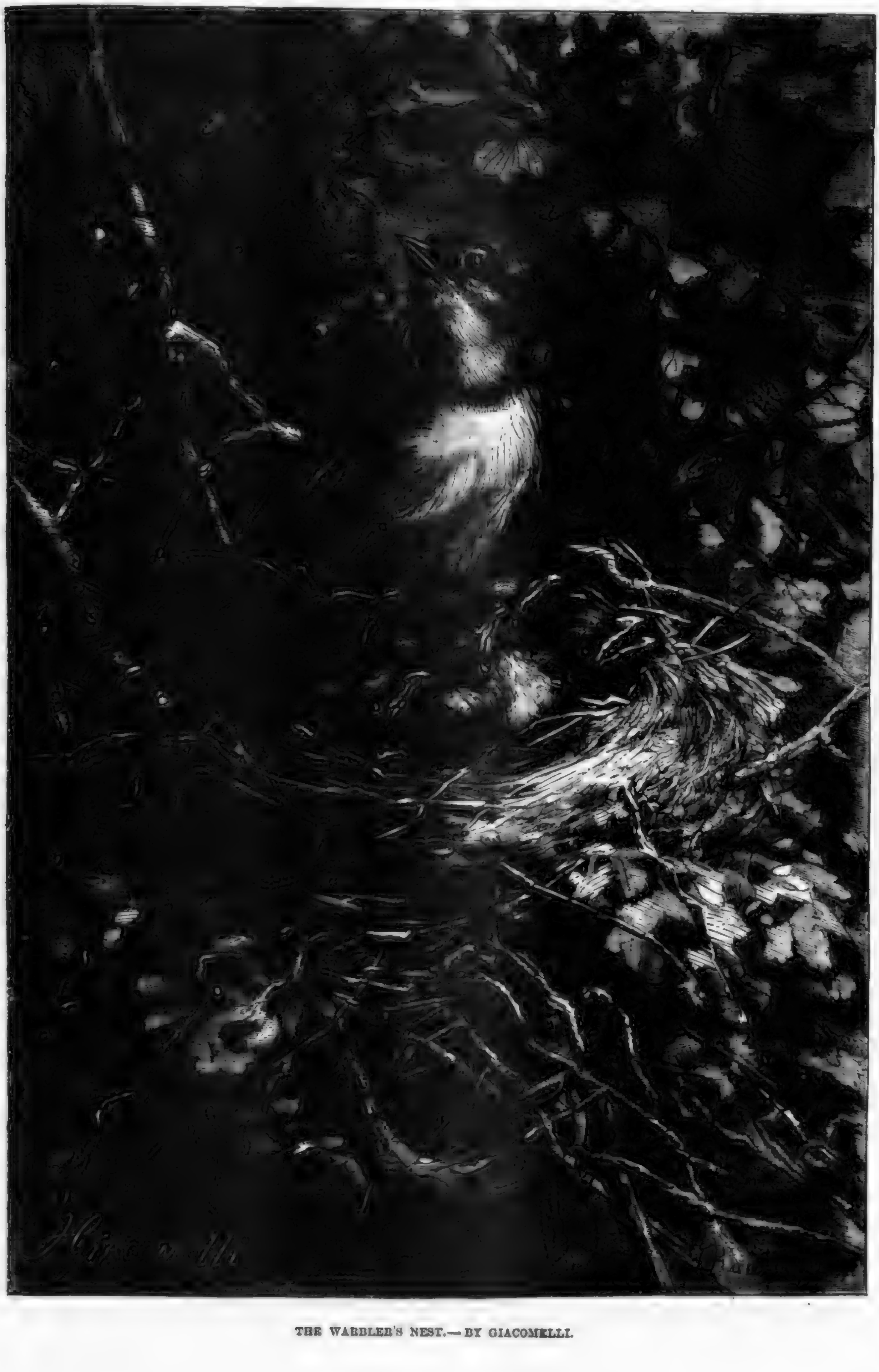
It may not be out of place to mention here that well-known historical fact relating to the accident that befell the much-married Henry VIII. His Majesty, it appears, was pursuing his hawk on foot at Hitchin, in Hertfordshire, and attempted to jump, with the assistance of a pole, across a ditch that was half full of muddy water. The pole, having no respect for the royal jumper, incontinently broke in twain, and precipitated King Henry on his head into the mud, where he would have been stifled had not a footman, named John Moody, who was near at hand, and saw the accident, leaped into the ditch and released His Majesty from his perilous situation; and so, observes the pious historian, "God of Hys goodnesse preserved him."

There have been many attempts to revive the art and practice of falconry, but not with much success. It is true, falconry has long gone out of fashion; still it is quite a mistake to imagine that the sport has altogether died out. The few falconers that remain, and steadfastly hold to the old sport, both amateur and professional, are believed to be direct successors of those past masters, of the ages gone by, who held their heads as high as any follower of other pastimes. Very often has it seemed that these faithful sportsmen had become extinct, but although obscure, there has never been a period when they were not to be found in some parts.

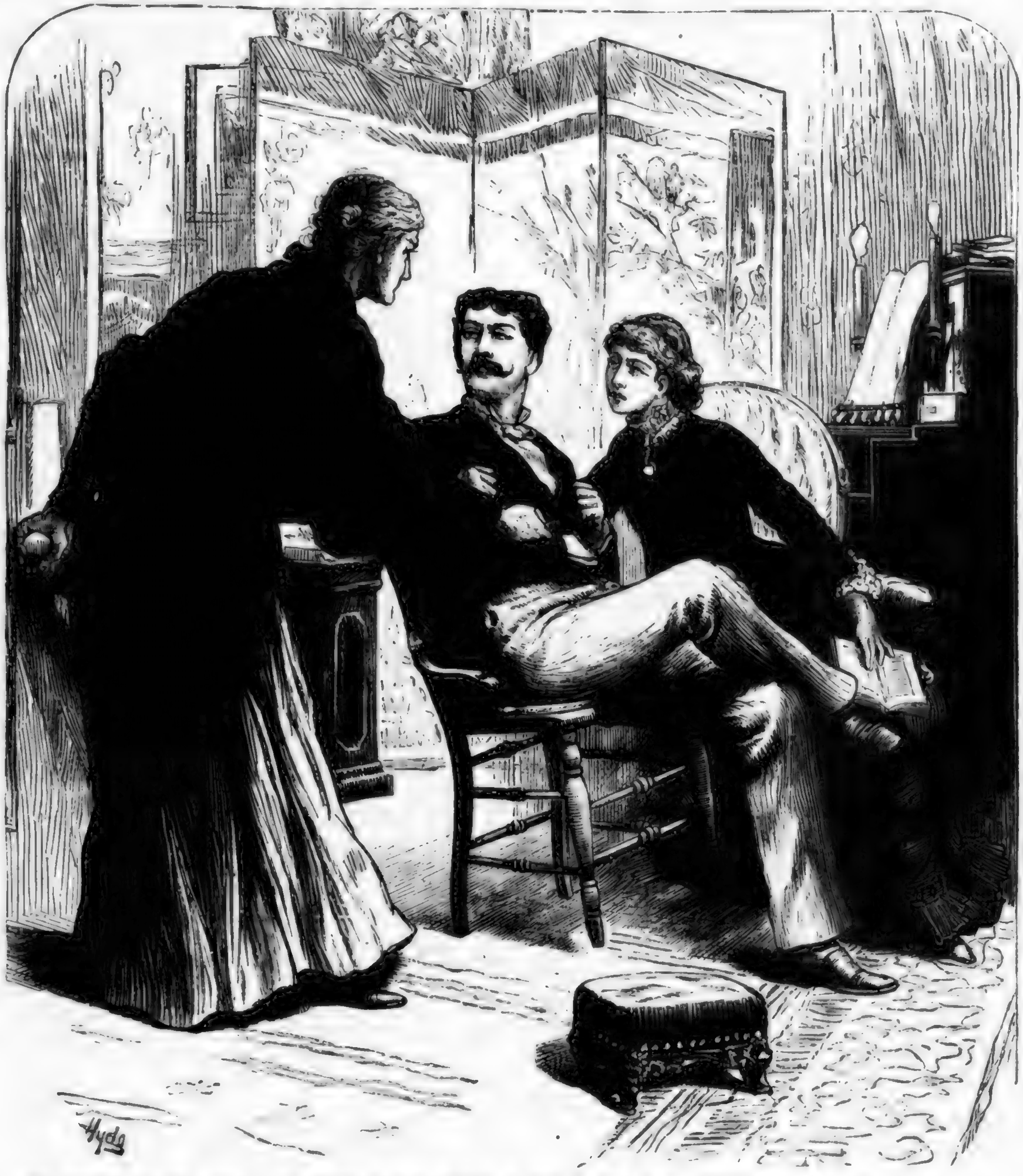
A recent writer remarks, apropos of this, "That little should have been heard or known of these stubborn votaries (falconers) of an unfashionable sport is no surprising matter. Little is now known or heard of the falconers who nevertheless survive in various parts of England, Scotland, and Ireland. They are consoled easily for the absence of any loquacious reporter to describe their doings in the style which we know so well in accounts of a long day with the Pytchley, or a fast run with the Quorn."

Well, if modern falconers wish to keep so very secluded, it is very evident that falconry is not destined to exist for a very lengthy period, though it seems a pity that so interesting a sport should be allowed to sink into utter oblivion without an effort to once more give it vitality.

XUM



THE WARBLER'S NEST.—BY GIACOMELLI.



THE STATUE AND THE LAMP.—"THE WHITE-HAIRED MOTHER, FRANTIC IN HER GRIEF, THRUST A BIT OF PAPER IN THE PALLID FACE OF THE YOUNG WIFE. 'READ IT!' SHE CRIED. 'YOU WROTE IT.'"

THE STATUE AND THE LAMP.

By Millie W. Carpenter.

Nothing but graves left now—nothing but graves in the neglected garden, with its moist leaves and tangled vines—with its forsaken air, as if the straggling sunbeams were ever creeping affrighted away.

The path sloping upward to the mildewed door is deep with dying leaves and grass. Behind the door are old, dismantled rooms, where no footsteps ever sound; and in one of the rooms a broken statue (is it a copy of some Greek lad of the olden time?—some swift runner, dashing back his hair and just starting in the race?), a lamp that never burns, and some pieces of rare carved wood, on which the moths and the rust of time work steadily.

This is Cloisterleigh, and the graves are the graves of those who lived and loved, and, having wrought well, died here.

Only—only that part of an artist which never dies—which cannot die—still lives on and works its mission above the crumbling dust.

And now—and now, back in that dim time, in these dim rooms, a mellow light is shining. All is warmth and cheery life.

XUM

In one end of the long room, where the artist sits at work, a huge clock towers, and in a terra-cotta jar a lovely daphne blooms. Here, too, is the white young Greek god—the swift runner in the race—with the lamp always burning before him to light him on his way.

"Is it a David?" old Dame Telfener was wont to ask. "I think it must be a David, though my son says not. He made it, and he ought to know. Strong and swift as the Hebrew lad was, and pure-looking, even as David must have been in his youth."

It was her pride as well as her duty to keep the lamp trimmed and burning brightly before this statue.

"It's David's fancy," she would say, "and may be an idle one. To be sure, against that dark carved wood, the marble does not look the same if the light is gone, so I keep it burning. And I have a fancy—my fancy, too—that as long as the light burns clear and bright, so long will David's path be sure before him."

"Well, well, mother"—here the young, living artist David, coming up behind unheeded, would touch his mother's wrinkled hand reverently—"still toiling and still preaching! Was ever so foolish and so wise a mother!"

"Ay, David! A foolish old woman—only a foolish old woman. But she loves her only son!"

The blue-eyed young David, with a smile and a tear together, stooping, kissed reverently this white-haired prophetess's hand.

"Any son with such a mother must be blessed—ay, he is blessed! For me, my one prayer is that in my life and in my death I may prove worthy of her who calls me 'David—son.' Now, leave me to my work; and, mother," he called to her, and then, as she, pausing, turned, his voice hesitated and fell, "it maybe Ruth will come for a few minutes to-night."

The mother did not answer. Something that was not quite a shadow, but was more like a dusky light, passed over her fine old wrinkled face.

She did not look at her son again, but went out of the room, shutting the door with studied carefulness behind her. Once in the hall, she stopped and looked curiously about her.

She was alone now. The low western light streamed through the wide-open door and fell upon her. And there before her eyes, at the end of that level stretch of road, not a mile away under the hills, another house stood. One tall brick chimney, towering straight up, caught the light, and so lay like a red mark—Cain's mark—on the lovely green of wood about it.

"Ay, ay"—Dame Telfener nodded, slowly—"maybe she'll come, David says—maybe she'll come. But she'll not come, David; your sweetheart will not come to-night. No, nor maybe to-morrow night, or the next."

Just then the old clock in the room where David sat at work began to strike. She stood motionless till the last echo of the deep sound had died away.

Then she lifted her hand and brushed away a tear.

"Strike, and silence!" she muttered to herself. "That's what the motto on the clock-face says. Strike, and silence. I've always held it to be an ominous thing, having that clock in there where David works, with those sinister words printed on it. I tell him so always, for some day he will strike his strongest into the deep stone—he will touch the very heart of the marble—and then his arm will be broken, and there will be silence ever after."

The old dame took a few steps forward.

"Strike, and silence. David laughs at me when I tell him that; he says it's just another of my fancies, like that of the lamp before the statue. Yes, I am old, but I know—I know. I have lived, and I know."

Her last words as she went out to her household tasks were:

"And I have learned to read a woman's face."

* * * * * *

Meanwhile, in that other room, David sat before the open window, a sure light in his eyes, a brave smile on his lips. With a sheet of rough paper and a bit of charcoal, he strove to catch and make visible the visions that thronged his brain.

All his beautiful, strong youth was instinct with work, and now to shape some flitting dream. Should it be some maiden—that Russian poet's *Brown Marianne*—the girl with the black eyelashes who walked along the sombre wood waiting for the moon, and wept? He could see her with her eager look there—

"Where now in green boughs' shadow
The cross rests on my nurse's grave."

Or should it be another, a more majestic shape, that another poet of another time and land had made immortal, when Robert Burns, mourning his broken life and his dead love, came up out of the pale Spring morning, "a wae-worn ghaist," flinging his shadow across all future time.

Suddenly a shadow from without fell upon the artist's paper. A sweet voice spoke:

"Oh, how busy you are! It's a shame to disturb you. I'll just say greeting and good-by."

The blood had flushed and then paled suddenly in David's handsome face. He looked up and saw standing just outside the window a tall young girl, her serious gray eyes looking straight at him.

A straw hat was tied over her ruffled hair, and with her bare hands she was carelessly knotting a little red shawl about her shoulders.

"Is it you, Esther? I was just thinking of wandering ghosts. You are shutting off my light, and you might as well come in."

"Ah, I did not think of that!" The girl stepped quickly aside. "I am so sorry. No. I am not coming in. I have been sitting with your mother."

"With my mother?" The young man's face flushed consciously. "You found her all alone, I am afraid, and, of course, she was glad to see you."

"Yes, she was alone!" Esther paused just a second here, but then she went on steadily: "She was fretting, David. I am afraid she is too much alone. She is old."

"Yes, yes!" David answers, a little hastily. "Just now, maybe, she is too much alone, but it will be different by-and-by." He glanced up at the girl who stood there mutely listening. "There will be a change. She will not be so much alone soon."

"I hope she will not," was Esther's quiet answer.

David's clear blue eyes looked at the young girl with a great friendliness in their glance.

"It is very kind of you to think of my mother," he said, "but you were always a favorite of hers. I like to think of your being with her always."

And now, if the slender hands under the red fringe of the shawl are tightly clinched—if there is a quiver of the soft brown cheek, and a dull, cold pain finding its way into the tender heart—what is that to him? or, how is he to know? Only, only if David had wished to make another sketch of the girl with the black eyelashes, whom the Russian poet sang of—the *Brown Marianne* who wept under an apple-tree—one would think his chance is here.

But this *Brown Marianne* does not weep now. Oh, no—no matter how hot and near the crowding tears lie behind the white eyelids.

"Good-night, David."

Esther stretched out the slender, strong young hand.

"Good-night, Esther; I am very sorry you will not stay."

She had gone some steps away across the turf, but some quick, stirring impulse—perhaps an innocent desire to get one more glimpse of the dear old house and the busy worker there—made her turn and fling a last sentence over her shoulder:

"I have further to go this evening. Ruth is gone away, and the house is shut up, so I must go on to grandmamma's."

There was no more work done at the window that night.

For a long time David sat with his pale face bowed on his cold hands, motionless.

No gladness in him now; the quick, stirring instincts of fierce and fiery work in him all dead; light and passion gone.

Ruth gone!—gone with no message for him, and only that morning he had seen her, and sweet and warm in his heart her promise lay that in the evening-time she would come, and, hand in his hand, whisper "Mother" to his mother, pass her vow to be wife and daughter there, and David's home should be her home thenceforward evermore.

Where was she now? Still another long hour he sat there, so motionless that he seemed to be a part of the never-moving shadows.

Then a feeble step came along the floor, a feeble hand touched his arm.

"David, my son."

"Yes, mother," he answered, gently, but not looking around.

"Why do you sit here alone in the dark? And you are cold! See, your hand is cold. It chills me."

The old mother had caught one of his nerveless hands and was striving patiently to warm it in her thin, pale grasp.

"It is nothing, mother. I have been sitting here too long quiet. I must have lost myself."

"Nay, you are in trouble, David. Do you think I cannot see?"

David lifted himself. He looked vacantly around.

"It is nothing, I tell you. I will go for a walk, and then I shall be better."

He had stepped to the window, but catching a glimpse in the dusk light of the old lady's sad, stern face, he paused. He stooped and kissed the wrinkled forehead under that white hair.

"Good-night, mother," he said, with a forced quietude in his voice. "Do not wait for me. I shall be well and will sleep when I come back. Do not sit up."

"You are trying to deceive me," said the old mother, with a jealous bitterness in her tone. "Do you think I do not know? I am old—ah, I have lived to learn many things. An hour or more, a long night's walk, will not cure the pain left by a false woman's vows."

Was it that his mother might tell him this he had lived through that sweet summer-time with the woman he loved by his side, listening to his dreams—the whole wide, beautiful future clasped in their folded hands?

He did not answer for a moment; his face seemed to grow wan and old as he stood with his sad eyes fixed on the distant wood. Then he gently released himself from his mother's grasp.

"I think I am rather tired," he said, in a low voice. "Do not fret about me, mother. I will come back soon."

His mother stood and watched him as he went away.

"You will come back soon," she muttered; "you will come back soon—ay, but my son David, the lad who lived and wrought so cheerily in this room, will never come back to me again."

Her gaze wandered out and fell on that other home, darkened now, whose shadow stretched backward and fell upon her own. Whither had she gone—that beautiful woman who had wrought this change? And now, even as the son had grown old, and haggard and worn, the mother's face seemed to grow infinitely younger in the passion that swept over it, filling it with vital force.

She lifted her trembling hand and shook it fiercely at the house below the hills.

"Wretch!" she cried. "What have you done with my son?"

* * * * * *

It was perhaps the simple instinct of old affections that led David's feet now by the accustomed ways he had gone with Ruth; it seemed to him that the path must yet be warm with the pressure of their beating feet, still green with the waving grass and flowers of those happy times.

But when he stood in the low gateway and looked about him, he felt all the change. Always there had been a voice to welcome him—a light burning for him. Now all was dark, silent and desolate.

He crept up the path to the door, and kneeling with upstretched arms, laid his cheek against the chill panels. His pierced heart felt all the agony of One who on the cross cried out that He was forsaken.

David, too, forgot his mother. Forsaken! forsaken! And there was no answer to his cry.

As he went down the walk, later, a lad whom he remembered to have seen in the service of Esther about the place, approached him. David paused and turned; the boy peered curiously up into his face.

"Oh, it is you, sir, is it? I was to give you this if you came."

He held up a white letter in the dusk.

"Miss Ruth sent it."

David took the missive. A message from Ruth. He felt cold—strangely cold from head to foot. The paper felt like ice to him. Why should there not be some magnetism of love in it to warm his chilled veins through.

Why, it was from Ruth—from Ruth!

He tried to formulate his thoughts to shape them in some question that might bring him a return of welcome tidings, but the words fell away from his lips like empty air—soundless.

Perhaps the waif divined something of the tumult in him, for, sticking his hands deep into capacious pockets, he peered again into the visitor's face, and said, cheerfully:

"I'm to get sixpence a day for keeping the grounds clean till Miss Ruth comes back. If you want any of these flowers here any time, I'll get 'em for you. They're only wasting."

Till Ruth "comes back." She is coming back, then, and soon. Surely, he can live till then.

So much he has learned. And now he felt an overpowering, a hurrying desire to open the letter. He had shrank from it before, but, now, who could tell. Perhaps——

He had been running along the silent road, and now

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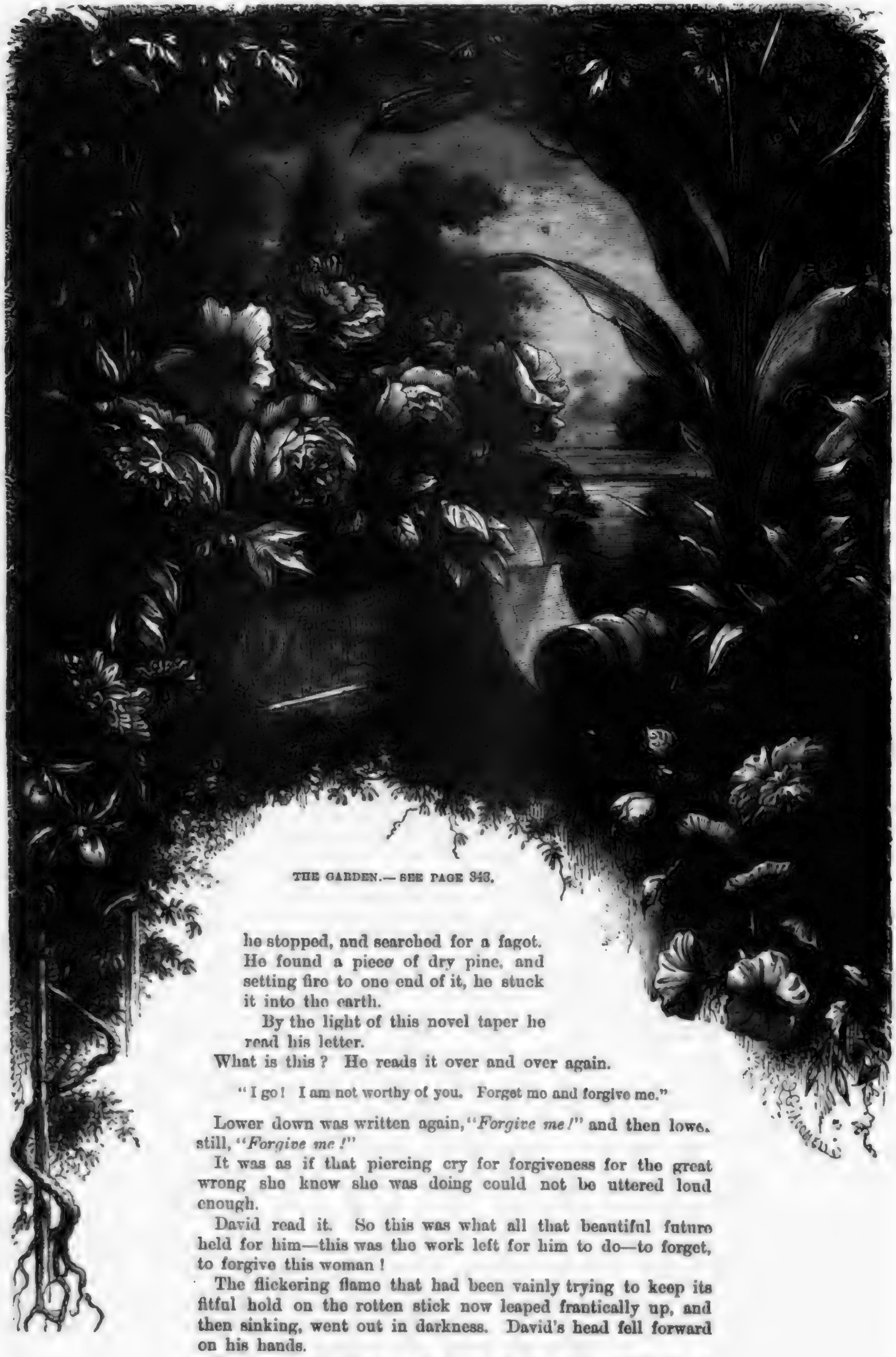


THE GARDEN.— SEE PAGE 343.

he stopped, and searched for a fagot. He found a piece of dry pine, and setting fire to one end of it, he stuck it into the earth.

By the light of this novel taper he read his letter.

What is this? He reads it over and over again.

"I go! I am not worthy of you. Forget me and forgive me."

Lower down was written again, "*Forgive me!*" and then lowe still, "*Forgive me!*"

It was as if that piercing cry for forgiveness for the great wrong she knew she was doing could not be uttered loud enough.

David read it. So this was what all that beautiful future held for him—this was the work left for him to do—to forget, to forgive this woman!

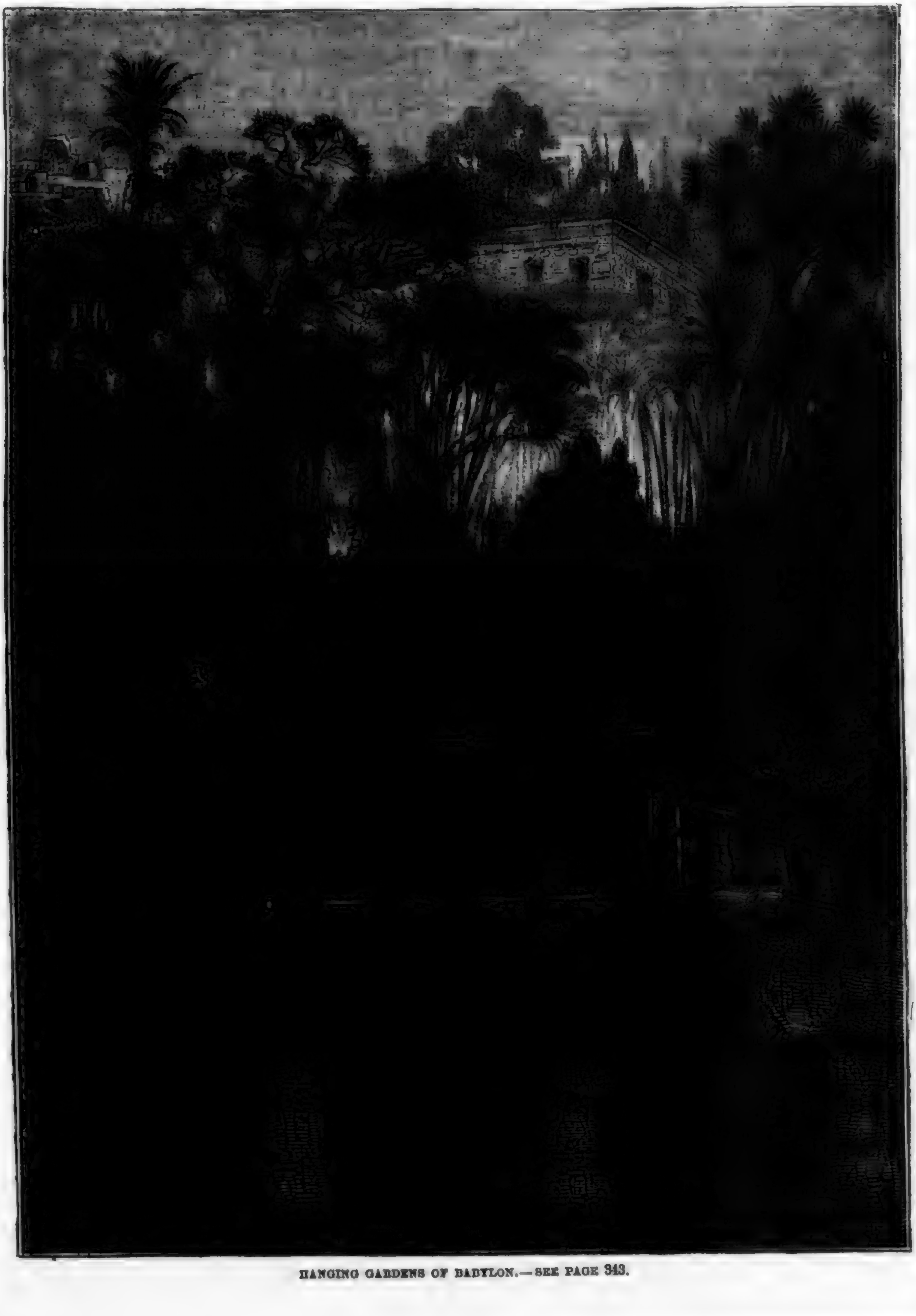
The flickering flame that had been vainly trying to keep its fitful hold on the rotten stick now leaped frantically up, and then sinking, went out in darkness. David's head fell forward on his hands.

To forget! to forgive! And now, as the moon, sweeping up above the dark circuit of the hills, sailed proudly out into the deep blue hollow of the heavens, the earth below grew darker. A shiver of moaning wind stirred the sombre night.

To forgive! Ay. And then another light that had been feebly striving to keep its dull hold on life went out in the darkness of despair.

The lamp that burned before the fair white statue was broken and empty now.

Still he lived; he would not die. He was not so weak



HANGING GARDENS OF BABYLON.—SEE PAGE 343.

as all that, he said to himself, and as to live meant to work, to eat and drink, and sleep and rise again to a new day, he found out in due time how hard that first allotment of his struggle was—to forget.

Sometimes he walked half through the night, coming home in the pale dusk, wan and haggard and weary-eyed—a hopeless, heartsick man.

Once, turning over some of his designs, striving to interest himself in his work once more, he came across the sketch he had made that bygone night, the unfinished "wae-worn ghaist."

David burst into a bitter and derisive laugh.

"You were there before me, Robert Burns!" he cried. "You, too, lost what was best of youth. But your Mary was in heaven. And mine, where is she—where?"

He pushed the papers aside. His mother, who was standing mutely behind him, great tears rolling down her cheeks, stole softly out of the room. She could not look on *that*.

The result of his watching, his wandering and unrest, was that a low fever seized him and kept him to his room for days. Something that was like fire crept through his veins, and ate his weakened life—his spent force vanished like stubble before a devouring flame.

Still no word from Ruth; but one afternoon he fancied he saw a change in his mother's face.

Something had happened—something she would not tell. So, at dusk, when she fancied him sleeping, he stole out and made his way as best he could to *her* gate. A faint flush quivered over his wan face as he saw the lights in the windows—the busy stir in the opened rooms.

All was warmth, light, bustle—the stir of happy life. Ruth had come home.

David staggered up the steps, and, pushing open the door, entered—unexpected, unbidden.

There, in the faint warm light of the pleasant room, in a low chair swinging lightly back and forth, singing softly to herself, a fair young woman sat. Ah, well! she was beautiful! No wonder, now, at David's yearning grief. Tall and lithe, with undulating waist, a soft carmine flush on the brown, dimpled cheeks—her rippling bronze-brown hair piled high over the broad forehead; the brown eyes wide open and full of laughing light, brown eyelashes, curving upward in a golden fringe.

This was *Brown Marianne*, the ideal and the living personification of David's artist dreams.

"Ruth! Ruth!" he cried.

The young girl sprang up. She stared at this gaunt intruder with wide, shocked eyes.

"David!" she whispered, in an awestruck voice. "David—is it you—*you?*"

"Ruth," he said, gently, "you have come back to me at last. Oh, why did you leave me? and you were gone so long, and there were no tidings of you. The time has been long—long. But now——"

He stopped, weakly. He had no strength for further speech. Ruth stared at him with glittering eyes.

"Oh, Heaven!" she whispered; "what a change! Tell me I did not do it—this is not my work."

"I could not live without you, Ruth," he said. "I have been very ill—I could not work, and I could only wait for you to come back. You came back to me, Ruth—you are my Ruth still?"

"No—no!" she cried out, terrified. "Oh, David, forgive me. I could not keep my promise. I was false—false. I could not love you well enough to be your wife."

Fire flashed from David's sunken eyes—a hectic flush burned in his thin cheeks.

"It was a lie, then!" he exclaimed, while he stretched out a thin white hand. "All your soft words were lies—all your sweet smiles were false. Who was it taught you that? Not those fair women that we read and talked of in our Summer walks. Not Laura, nor Evangeline, nor the bright Rosalind. They were faithful. And you—you? All your words were falsehoods, all your smiles were deceit."

She shrank away from him, affrighted.

"I ask you to forgive me," she sobbed, brokenly.

David stretched out sudden, entreating hands.

"Ruth—Ruth! come back to me," he pleaded. "Oh, my darling! let things be as they were before. Be my Ruth again. Come home to me."

She fell back a step—then turned away.

"I cannot; it is too late!" she answered.

She paused; quick footsteps—those of a man—approaching along the hall startled this excited pair.

Ruth flushed, and then turned deathly pale.

"Go, David," she whispered, rapidly—"go; it is my husband coming!"

David stood mute a moment. It seemed as if he might be turned into stone.

"Your husband!" he muttered, at last, and the words came thick as though his lips were numb. "Oh, Ruth, you belie your name! The Bible Ruth was sweet and true. *Your husband* here!"

He staggered; with some difficulty he reached the door. Then he paused and threw back one last look at her.

Tears were running down her cheeks, and she was supporting herself by the table as if she felt faint.

"Your name was Ruth," he said. "You were my Ruth; but your name should be Herodias, for you love to kill!"

It seemed to the wretched girl as if a dead man had risen up to accuse her.

And now, how cold he felt! His blood was ice in his veins. Where was he? Was this the fair, soft Summer world he had left behind him when he went within-doors? Was not, rather, the air full of blinding, whirling ice? He could not tell whither he was going.

"Mother!" he sighed—"mother!"

* * * * * *

That night Dame Telfener, haggard and worn and wild, burst into the room where Ruth was sitting with her husband beside her.

Terrible and dark she stood over the pair, sitting exultant in their bridal bloom.

"Wretch," she cried, "where is my son? What have you done with him?"

What answer?—what answer to be made to that?

The white-haired mother, frantic in her grief, thrust a bit of paper in the pallid face of the shrinking young wife.

"Read it!" she cried. "You wrote it. You have killed him! My boy! my boy!—give me back my boy!"

* * * * * *

In the wan, sad morning twilight they brought the son home to his mother—dead!

Was there any atonement for that, or was there any crime in what was wrought that David died? He died young, and we have read that the gods loved such deaths.

He had a peaceful grave among the hills, and the warm, yellow light streamed in on the black earth, and on the coffin-boards. And the grass was crisp and golden—the air sweet with piny odors.

They covered the coffin-boards with the tall, green mountain fern, and sang a few fitting lines above it.

> "Eternal beam of Light divine"

were the words they sang—that lovely old hymn of Wesley's. And Ruth was there, and Esther, supporting the bowed mother. One could have fancied David himself standing by, with a placid smile on his lips.

So good-by, and God rest thee, gentle soul! There have been sadder deaths. At least, on yours there was no stain.

You only suffered! You did not strike!

GARDENS.

By Walter Edgar McCann.

Bacon wrote of gardens, and it is one of the best of his wise and stately essays. The value of his work of this character is that its wisdom is for all time, and what he wrote can be read with pleasure still, although his directions for the setting-out of trees and the cultivation of plants have, for the most part, been long since obsolete. There is something pleasant and musical in his enumeration of the old-fashioned flowers, and, in his formal advice as to how they should be displayed, it is noticeable that he dwells on their perfume more than on their color. His large and tranquil spirit loved things on a grand scale. His first statement is, that a garden should comprise not less than thirty acres.

A man of reflective mind requires little more to make him happy than books and a garden. It is to these that, however full of adventure his life may have been, he turns always in the end. Lord Beaconsfield spoke of how vividly the feeling came to him after he had laid down the cares of statesmanship and retired to his estate. Everything, he said, changes but the trees and flowers. His heart beat with relief and something like rapture to get back among his roses. The peace and loveliness of his country seat exercised the spell of music over his tired senses.

There is, in truth, a never-ending interest in the tending of flowers. Every rosebush has its individuality—the hardy and the sick and weakly. It is not necessary to know anything of botany—perhaps the real enjoyment is all the greater for ignorance in this field of erudition. The age is too much disposed to go into the anatomy of things. The most sacred passions, the tenderest emotions, we must analyze. People seem to have been really better before they fell into this morbid habit of dissection—there was more simplicity and genuineness. Nowadays, in a love story, we must dig down into the most secret motives and innermost feelings of the hero and heroine. No one loves unconsciously and with the frankness and impulsiveness of Sir Charles Grandison's time.

Man has a natural affinity for a garden; probably a remnant of Adam in him. He likes, too, his bit of earth for himself. The individual who first stamped his foot upon a spot of the soil and exclaimed, "This is mine!" was, according to Rousseau, the first robber; since he seized that which, until then, had been the common property of all; but it is human nature to desire such a resting-place. The day arrives when the wanderer is tired, and when he feels that he must have a shelter under his own vine and fig-tree. He must possess such a refuge, in which he shall not be disturbed by the sound of shallow foppery in the world outside, and from which he shall not be expelled.

Lately, a theory has been put forward that plants are among the best of sanitary agents, and those who are ailing are advised to live among and cultivate them as much as possible. A scientific reason is given—in a materialistic age people must have an explanation for everything—namely, that the sweet or pungent odors are grateful to the lungs and fatal to the bacilli which are supposed to be the cause of modern diseases. Florists who take ordinary care of themselves are said to live longer and enjoy better health than other persons, and the statistics of longevity are reported to exhibit some marvelous results in this respect.

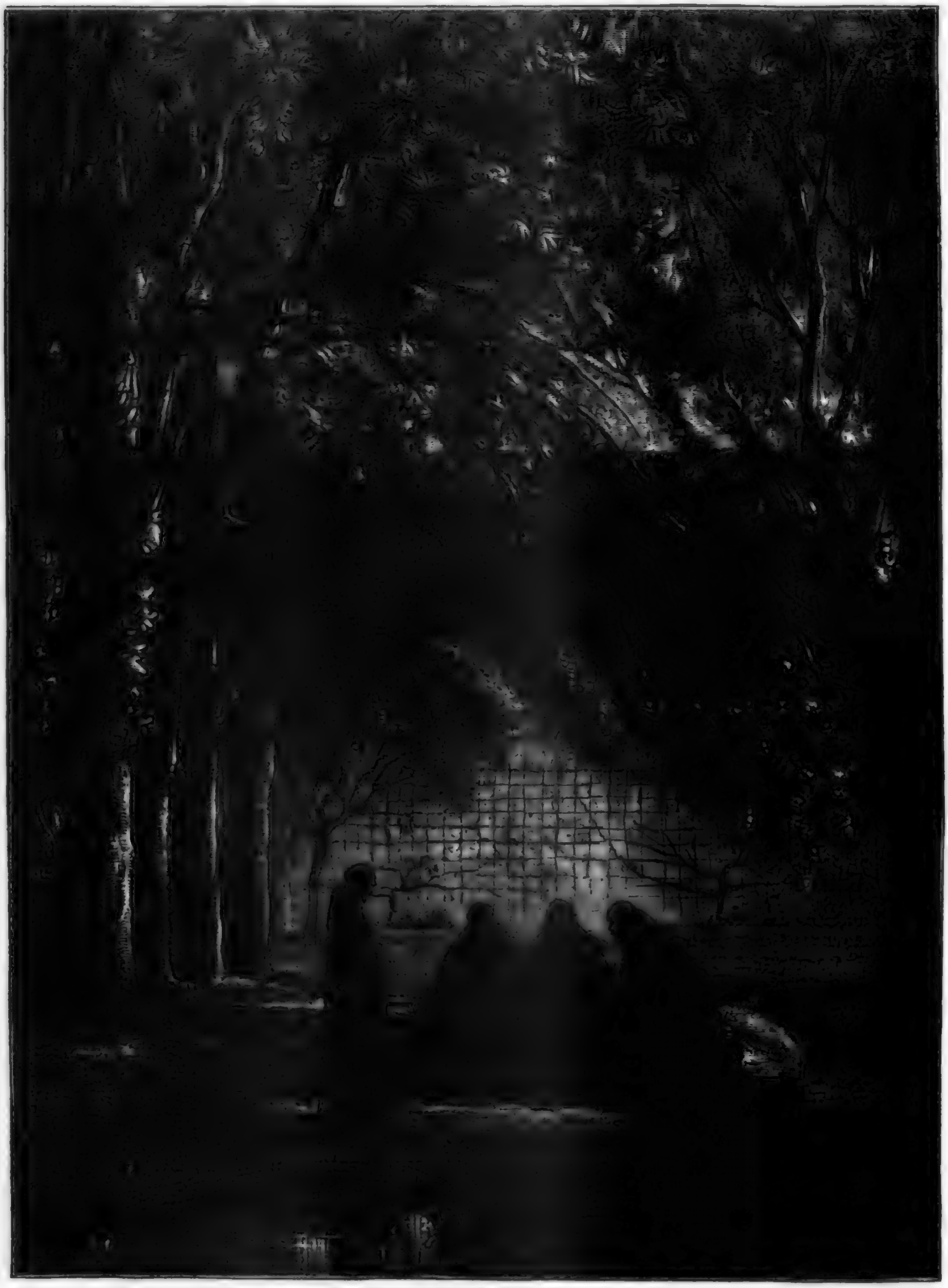
There is nothing unlikely in such a theory, and it would, perhaps, be difficult to give the invalid better advice than to concern himself with the affairs of a garden. It should be as far as possible his own—that is to say, he should have a direct personal interest in the welfare of the sweet and lovely growths about him. The plants which have been placed in the ground by his own hands he will watch with a different solicitude from that with which he would regard the work of a deputy. Any one who has ever set out so simple a thing as a rosebush must have realized how the affections insensibly become entwined among its leaves. The birth of every bud is an event in the world of creation. It is not surprising that some, like Byron with his Newstead oak, planting a tree, have watched its course with a superstitious anxiety and have fancied a correspondence between its career year by year—its flourishings and fadings, its sickness and its health—and their own. His oak outlived him and still stands, as memorial trees generally do. There is an oak planted by Gilbert White in 1730, now about sixty feet high and in good health. In Arundel Park there are two oaks planted by the Queen and the Prince Consort in December, 1846, and both are flourishing, although the Prince himself is gone; so that there is not much in the superstition.

A man's garden may be likened to his kingdom, and there is, therefore, no one so poor who may not be a monarch in his own right, although his possessions comprise not as much as an acre. No monarch has lovelier or more submissive subjects. They are always striving to please and paying tribute to him with their sweetest incense. Where are there courtiers with greater splendor and variety of attire? To whatever point his eye may turn it is fed with a thousand tints and hues which no earthly art can mock or follow. There are the beautiful and haughty ladies and the graceful knights of his court, and his brave men-at-arms, the trees.

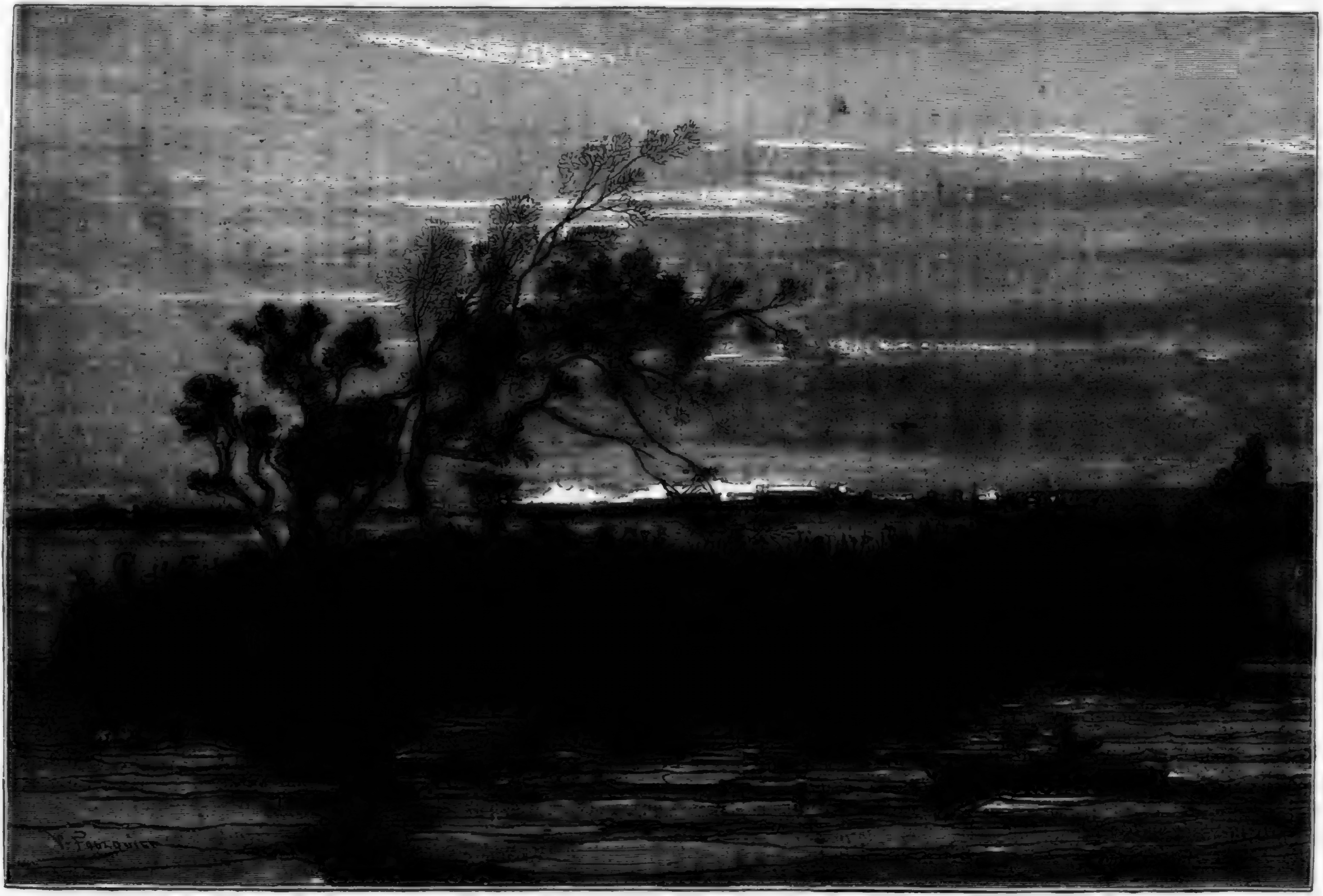
And, like the larger kingdoms of the world, every garden has its annals and its incidents. There are momentous days, when the birds begin to come back and build their nests. Mr. Lowell, in his charming way, has described the endless delight he found in this sort of study and observation. His heart always gave a leap to see the robin, "whose return," he says, "is commonly announced by the newspapers, like that of eminent or notorious people to a watering-place, as the first authentic notification of Spring." And such his appearance in the orchard and garden undoubtedly is. There is, I admit, a spice of vulgarity in him, and his song is rather

XUM

of the Bloomfield sort, too largely ballasted with prose. His ethics are of the Poor Richard school, and the main chance which calls forth all his energy is altogether of the belly. He never has those fine intervals of lunacy into which his cousins, the catbird and the mavis, are apt to fall. With whatever faults, he has not wholly forfeited that superiority which belongs to the children of nature. He keeps a strict eye on one's fruit, and knows to a shade of purple when your grapes have cooked enough in the sun. The robins are not good solo singers, but their chorus, as they hail the return of light and warmth to the world, is unrivaled.



OLD CONVENT GARDEN.


V. Foulquier

THE FLOATING GARDENS OF MEXICO.

XUM

The poet, however, confesses that he was almost equally fond of the catbird, which is more shy. If one might be allowed, in a rambling discourse like the present, to express a preference, I should say that the catbird has always been my favorite of all the garden tribe. In his shyness there is something of the fascinating coquetry and artfulness of a pretty woman. I remember one who came two Summers in succession and made his home in a quaint and disorderly garden that I knew. The first season everything went well with him, and he incorporated himself as a member of the household. He did not mind the children or dogs, and in course of time, although in the beginning a little distrustful, grew to feel a sort of contempt for the family kitten. At sunset he would often perch on the bough of a cherry-tree, immediately over puss's favorite spot for napping, and whistle, glancing down now and then with a careless scrutiny and the charming disdain of a spoiled beauty. He had grown, or affected to have grown, altogether fearless. The next Summer, remembering his pleasant sojourn, he came again, and for a month or two all went as agreeably with him as before. But, meanwhile, the children and the kitten had grown considerably. Puss had taken to burglary and still darker crimes—and my catbird, probably by some unpleasant observation, became aware of the fact—and the children had become mischievous. Life was no longer the careless and merry holiday it had been with my feathered acquaintance. Whenever visible he had a hurried and anxious manner, and when he sang near home it was at long intervals and under restraint, and with a vigilant eye about him. I was suddenly called back to town. On the morning I left, while the train was standing a few minutes, I heard a commotion in the tree—the voice of my catbird in distress. He was fluttering hither and thither—scolding and appealing violently. The children had climbed among the branches and discovered his nest. At this point of acute suspense the romance of that little garden for me ended, for the train now glided on again, and I never knew whether anything fortunate interposed or whether the catbird's home was broken up, and his lares and penates, like Lord Byron's, were shattered upon his hearth.

Plants may be valuable sanitary agents, as the scientist to whom we have alluded avers; but those who have regained health from gardening, it seems more likely, did so because of the charm of the occupation. There is the beneficial exercise of digging and delving—the work of the trowel and the hoe and the tiny scissors. And mind finds occupation as well as the body. There is the pleasant anticipation and suspense. The little population about one has all the vicissitudes and uncertainties of beings in the world of human life. The young trees and bushes are set out and the flower-seeds are planted, but no one can say, in Banquo's phrase, "which grain will grow and which will not." Some come up in vigor and beauty, and some do not appear at all. And of those which have entered upon existence, some, perhaps those which promised best, like children, die in infancy; and some, which were sickly and stunted in youth, reach the fairest maturity. And yet when the seeds went into the ground all looked alike, and not the most expert horticulturist could have told the difference. The horoscope of a flower is as impenetrable a mystery as that of a man, and the astrology of the garden is but guesswork and empiricism. The most vigorous plant will often droop without any apparent reason, and there is grave anxiety, and science is called in. We give tonics and coddle the sufferer, and place supports about him. Perhaps mysterious insects are found eating away the roots. There is too much or too little moisture. There are inscrutable troubles, and the loved one pines and dies. It is astonishing how trees will often be seized with a baffling malady—generally some favorite fruit-tree, noted for the superiority of its product. I remember a fine pear-tree which, after bearing luxuriantly year after year, and providing, every Summer, a lavish banquet of the most delicious pears, suddenly began to languish. The fruit started forth with its usual glorious promise, but before maturity was smitten with the mysterious stain of internal decay, and dropped off. The surgeon was called in, and examined the branches and the roots and the ground, and made incisions and talked wisely. He gave remedies and directions in abundance, but nothing availed. The tree lived on, and was as hardy in appearance as ever, and in all outward seeming was in perfect health as could be wished; but the fruit continued to be abortive, and it certainly was provoking, remembering those luscious pears in the past, to see them now drop off, blighted, before their time.

The constant life in the open air which gardening requires is obviously one of the reasons why the occupation is deemed, and must be, healthful, although there may be virtue, too, in the ozone of the plants. There is nothing new in the idea of good or ill contained in the emanations of flowers. Who does not remember Hawthorne's story of "Rappacini's Daughter" and the garden of poisons? From his flowers and herbs the sinister Dr. Giacomo Rappacini distilled his medicines, potent as a charm. A baleful garden was this, with "its dark pool, into which the water from the fountain subsided, and around which grew the mysterious plants with their gigantic leaves and gorgeous flowers. Some were placed in urns, rich with old carving, and others in common garden-pots; some crept, serpent-like, along the ground or climbed on high, using whatever means of ascent was offered them. One plant had wreathed itself round the statue of Vertumnus, which was thus veiled and shrouded in a drapery of hanging foliage, so happily arranged that it might have served a sculptor for a study." The lovely Beatrice, daughter of the malevolent old doctor, had inhaled the perfume of this hellish garden until her breath became, like them, poisonous. What a striking and artistic touch is that where the stray butterfly comes over the wall, having wandered from the city, and, drawn to Beatrice, flutters about her head and grows faint and falls at her feet, its bright wings shivered—blighted by the exhalations from her beautiful lips!

Bacon, to return to him, was evidently a practical gardener after the stiff and artificial manner of his time. His essay on the subject is one of the longest in his collection, and is curious as displaying the ideas which then prevailed. He speaks in a strain which shows that the employment of digging and planting was one of those nearest his heart. At the time he wrote he had passed through trouble, and had learned from bitter experience the hollowness of human ambition. Many great spirits, sore with disappointments, have turned to this homely and serene occupation, in the pursuit of which, with its tranquil labor, its gentle uncertainties, its pleasant anticipations, and even its disappointments, there is possible an absorption which drives away disagreeable memories and graver cares.

Bacon writes of a garden, as of other things, like a man used to princes and courts, always on a grand scale. He reminds us that it was God Almighty who first planted a garden, and says that it is the purest of human pleasures and the greatest refreshment to the spirits of man. In the royal ordering of gardens, the spirit in which he conceived his enterprises, he would have a garden for every month in the year, and he gives us a prodigal catalogue of what should be planted. In his flowers he would pay most court to those which do best perfume the air, and he, therefore, gives preference to the violet, especially the white double violet, the which, above all others, yields the sweetest smell in the air, over the roses, "which are fast of their odors." Those which perfume the air the most delightfully, not passed by as the rest, but being trodden upon and crushed, are the burnet, wild thyme and water-mints, and accordingly he recommends his readers to set whole alleys of them, "to have the pleasure when you walk or tread."

Bacon, after his splendid and prince-like fashion, would have a garden not less than thirty acres in extent, and he describes, at length, how he would lay this out, in three parts: a green in the entrance, a heath or desert in the going forth, and the main garden in the midst, besides alleys on both sides. Some of his notions are strange and fantastic, but he was not without taste in the smaller details, since, he says: "I, for my part, do not like images cut out in juniper or other garden stuff; they are for children." This wretched piece of ill-judgment prevailed, not only in his own day, but centuries later was carried to an extreme. He would even have statues, which, although they may be added for state and magnificence, add nothing to the true pleasure of a garden. His whole description is quaint and interesting, and shows the scope and stateliness of his mind.

The literature of gardens would fill a vast library. The ancients have written freely of them. The Greeks and Romans were people who lived much in the open air, and the latter seem to have had true relish for Adam's occupation, although their ideas of landscape were stiff and formal. The modern poets sing with evident enjoyment of the tranquil pleasures of cultivating flowers and plants. Cowley's poem on the subject, dedicated to J. Evelyn, Esq., is one of his best.

Says honest Cowley, writing with impatience and disgust from "the inn of a hired house and garden among weeds and rubbish":

"When God did man to His own likeness make,
As much as clay, though of the purest kind,
By the Great Potter's art refin'd,
Could the divine impression take,
He thought it fit to place him, where
A kind of heaven did appear,
As far as earth could such a likeness bear:
That man no happiness might want,
Which earth to her first master could afford,
He did a garden for him plant
By the quick hand of His omnipotent word.
As the chief help and joy of human life,
He gave him the first gift; first, even before a wife.

"For God, the Universal Architect,
'T had been as easy to erect
A Louvre or Escurial, or a tower
That might with heaven communication hold,
As Babel vainly thought to do of old:
He wanted not the skill or power;
In the world's fabric those were shown,
And the materials were all His own.
But well He knew what place would best agree
With innocence and with felicity:
And we elsewhere still seek for them in vain;
If any part of either yet remain,
If any part of either we expect,
This may our judgment in the search direct;
God the first garden made, and the first city, Cain."

The works which have been written upon practical gardening would form at least one-half of the library of which I have spoken; but the art is not to be acquired from books. No one ever learned to be a fisherman from Izaak Walton's garrulous volume, although so many thousand anglers have thumbed it. Every man has ideas of his own, and, in truth, in carrying them out lies the fascination of the employment. There is a charm even in the failures. Perhaps none other is more fascinating, as is shown by the undiminished ardor with which, in spite of frequent disappointments, it is pursued. In this, as in many other things, the garden is an emblem of life. We continue to labor in the constant hope of good fortune in the future, although the same dream has been so often shattered.

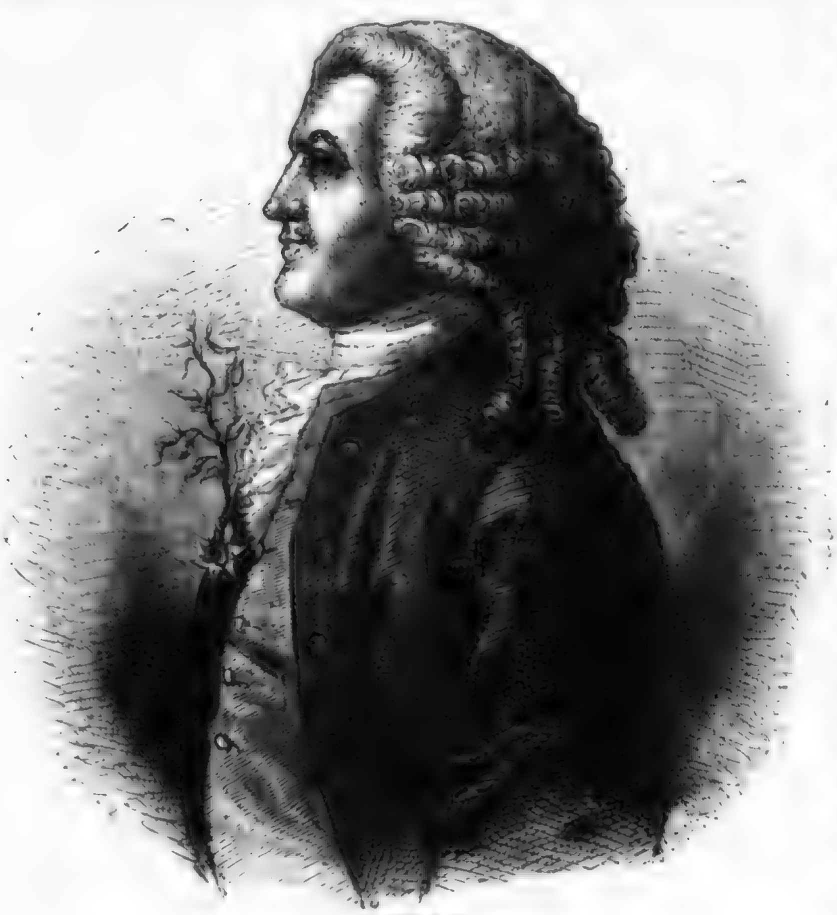
The changes in landscape gardening since the art was first pursued are singular, and shows how long mankind takes to learn. When pleasure-grounds were first laid out everything was formal and geometric. The trees and plants were trimmed into grotesque shapes, and the park filled with temples, monuments, statues, fountains and other accessories, so that the whole had the air of the stage. Nothing could have been more tasteless, and yet down to the days of Pope, and, indeed, as late as those of George IV., this was the vogue. In such gardens it was fit that the scenes of the dreary eclogues of the antiquated English poets should be laid. The theory now is just the reverse—the more natural the garden the lovelier. All that suggests art is scrupulously excluded. Natural scenery is studied, the effects of light and shade, the disposition of ground surfaces, trees, grass, roads and water. The negligence and wildness of the natural landscape is sought for. In the famous Gardens of Versailles the artificial style was followed, and the effect was extremely monotonous and irksome.

The Hanging Gardens of Babylon, shown in our illustration, were among the wonders of the ancient world. The stories of their origin are various; but Queen Semiramis is said by most authorities to have constructed them. They are described as having formed a square, with an area of nearly four acres, but rising in terraces constructed with stone pillars. The summit was elevated three hundred feet above the base, the whole looking, at a distance, like a pyramidal wooded hill. At the summit there was a large reservoir, filled with water from the Euphrates, for the purpose of irrigation and the supply of the many fountains. Throughout the terraces were distributed fountains and banqueting-rooms, and there were groves and avenues of trees and parterres of flowers, and from these elevations the view of the city and neighborhood was extensive and magnificent.

Of all gardens, however, one's own is the most beautiful and the best. "I like my garden better than any other garden," says Alexander Smith, "because it is mine. And ownership in such a matter implies a great deal. I am the creator of every blossom, of every odor that comes and goes in the wind. These plants and trees have their seasons of illness and their sudden deaths. These are the tragedies of the garden, and they shadow forth other tragedies nearer us. In everything we find a kind of dim mirror of ourselves."

A ROYAL HANGMAN.—It is not generally known that Henry VIII. hanged no fewer than 72,000 thieves, robbers, and vagabonds, and that "good Queen Bess," doubtless affected by her royal father's ferocious example, was, in the latter part of her reign, responsible for the slaughter of three or four hundred criminals yearly.

XUM



LINNÆUS.

LINNÆUS, AND UPSALA UNIVERSITY.

BY SARAH K. BOLTON.

IT was on the 24th of July that we left Stockholm, the Venice of the North, built on her nine islands, for the famous university town of Upsala. The ride, of about two hours' by rail, lay along fine fields of wheat, blue with corn-flowers, and past comfortable-looking red farmhouses and barns.

The town, of 13,000 people, is quaint and quiet, yet most interesting to a stranger. We wander over the grand old Gothic Cathedral, begun 600 years ago. Here is the silver-gilt sarcophagus of King Eric IX., who died in 1160, and of John III. Here, also, that of Gustavus Vasa, the deliverer of Sweden, on a high marble pedestal supported by pillars, his three wives on either side. The walls of the chapel where he lies are covered with frescoes, depicting scenes in that wonderful life; the rags of the miner, and the sumptuousness of the throne.

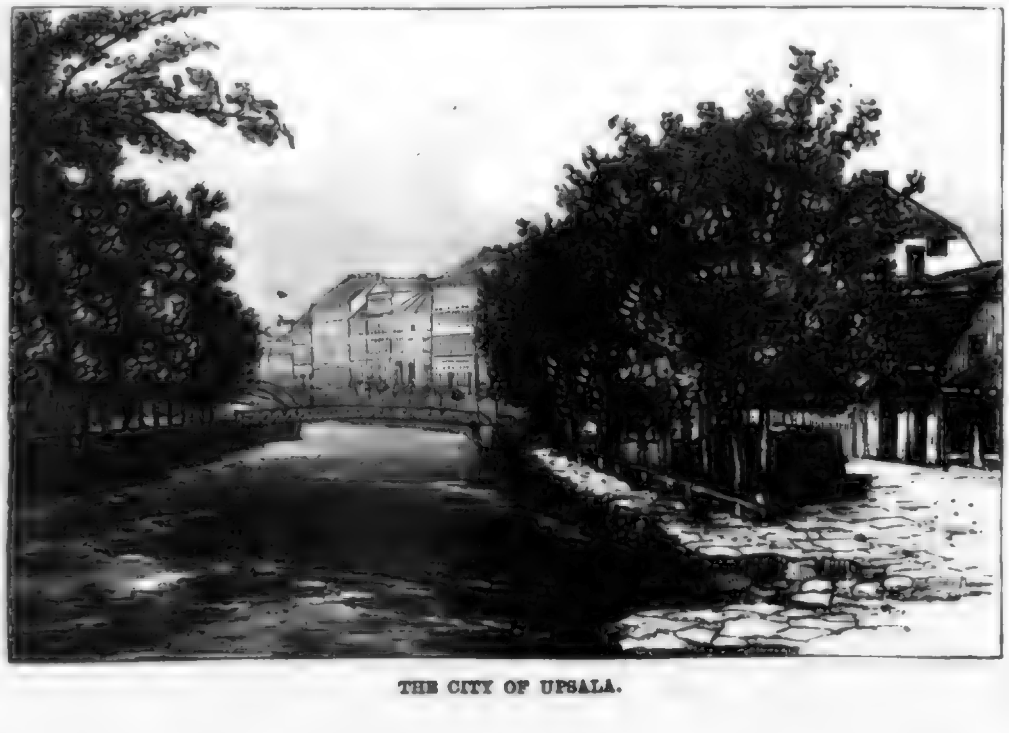
But especially are we interested in a plain slab, underneath which sleeps the man who, more than any other, has immortalized Upsala University, and helped to make Sweden an intellectual and student-loving country. Near by is the monument, of dark porphyry, with the plain, shaven face in bronze, wreathed with laurel, and the words, "Carolo a Linné Botanicarum Principi Amici et Discipuli, 1778."

Then we turn our steps to the University, the pride and hope of Sweden. Here 1,500 gather, not in dormitories—which were tried fifty years ago and discarded—but scattered in various homes, as in the German universities. Women are educated here on equal terms with men, and we are assured by the professors that, though admitted only a few years ago, their presence is most helpful, and the plan has proved entirely successful. No duels are allowed, these having been abolished by stringent laws 200 years ago; a thing Germany should long since have done, and thus ended this brutal custom.

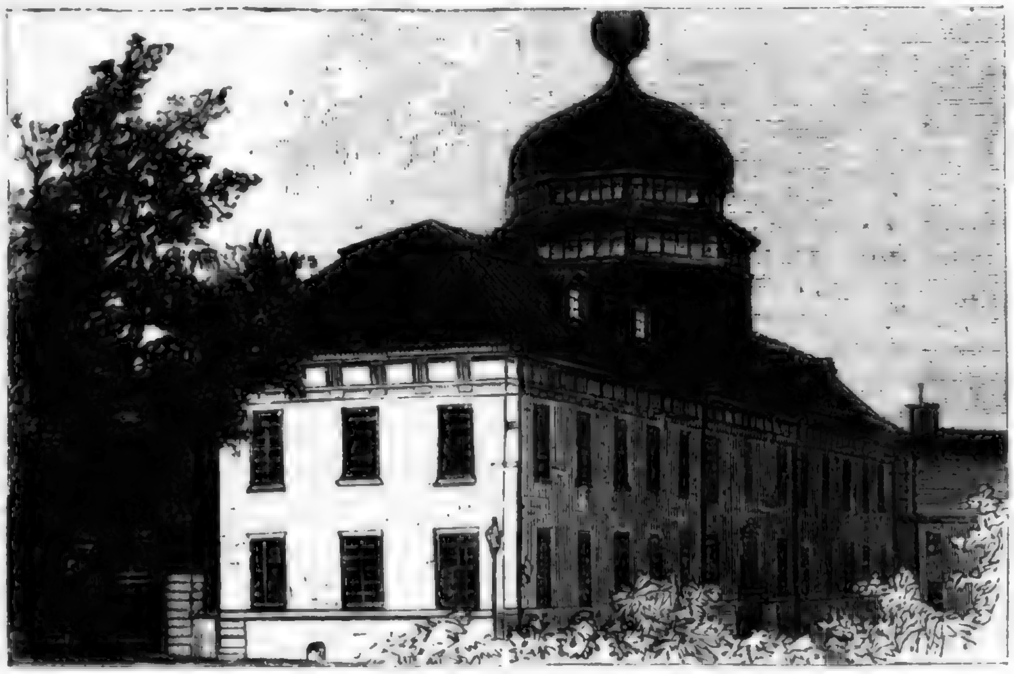
Here is the Astronomical Observatory, the Chemical Laboratory, Anatomy Building, Academic Department, and handsome Library with 200,000 volumes and over 7,000 manuscripts. Here we look at the celebrated "Codex Argenteus," a translation of the four Gospels by Bishop Ulphilos, dating from the second half of the fourth century, written on 188 leaves of parchment — gold and silver letters on a reddish ground; and the MSS. by Tegnér of Frithiof Saga.

Now we visit the Botanic Garden which Linnæus so loved and developed, and go over the two-and-a-half-story stuccoed house, cream-colored, where the great naturalist lived and entertained princes. Under these dark poplars, enormous in size, he taught the pupils who came from all the world to hear him. The dark, closed blinds are as he left them, for Sweden would not change one thing about the precious home. Too little in our own country do we treasure the homes of those who have shed honor upon the nation.

The history of Linnæus is, indeed, a romance. Few have had such great struggles with poverty; few have come off such conquerors. Few lives have given to the world such lessons of cheerfulness, of perseverance, and of untiring industry. He was born, May, 1707, at Bashult, in the South of Sweden, the son of a poor minister,



THE CITY OF UPSALA.



OLD UNIVERSITY, UPSALA, FOUNDED BY GUSTAVUS I.

and the eldest of five children. The father had obtained his education by the hardest, and, while he had only poverty to offer his family, he gave them what money could not buy, tender affection, and the inspiring influence of a cultivated mind that loved Nature and studied her closely. His mother, a woman of sense, prudence and good judgment, was his idol. He wrote of her in later years: "She possessed all the virtues of her sex, devoting the utmost attention to impressing on my mind the love of virtue, both in precept and example."

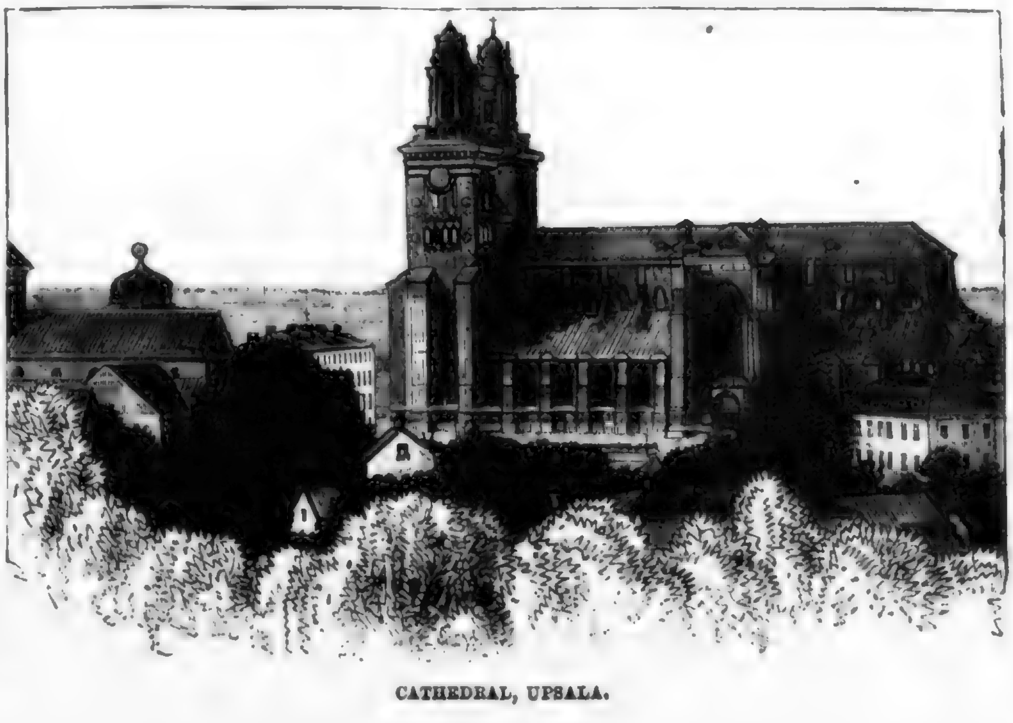
If more mothers talked plainly with their sons about "virtue, devoting their utmost attention to it," we should have thousands more pure lives, like that of the great Linnæus, than we have to-day.

From a child he was fond of his father's garden, and gathered from the fields all kinds of wild flowers. He says of himself in his autobiography: "He was scarcely four years old when he accompanied his father at a feast at Mökler, and in the evening, it being a very pleasant season of the year, the guests seated themselves on some flowery turf, listening to the pastor, who made various remarks on the names and properties of the plants, showing them the roots of the succisa, tormentilla, orchides, etc. The child paid the most uninterrupted attention to all he saw and heard, and from that hour never ceased harassing his father about the name, qualities and nature of every plant he met with; indeed, he very often asked more than his father was able to answer, but, like other children, he used immediately to forget what he had learned, and especially the *names* of plants. Hence the father was sometimes put out of humor, and refused to answer him unless he would promise to remember what was told him. Nor had this harshness any bad effect, for he afterward retained with ease whatever he heard."

When he was eight a piece of ground was assigned him, which was called "Carl's Garden." Here he gathered plants and flowers, and introduced so many rare weeds that his father had great trouble in eradicating them. So interested did Carl become that he had nests of wild bees and wasps, not agreeable playthings usually.

But the play days with weeds and wasps came to an end, for the bright boy must go to school. His first teacher was "a passionate and morose man, better calculated for extinguishing a youth's talents than for improving them," and the next "pursued the same methods, preferring stripes and punishments to encouragements and admonitions." There was little time now for the precious study of flowers. At seventeen he must go to a gymnasium or high school, where he would be taught classics and made ready for the ministry, like his father. He had no fondness for the languages, neither for theology nor metaphysics; but, having obtained two books on botany, he read them day and night, committing them to memory. The teachers and scholars called him "the little botanist."

What was his father's chagrin, when he came to the school to visit him, to hear that Carl was quite unfit for the ministry, but would probably make a good tailor or shoemaker! Poor as he was, he kept his boy at school for about twelve years. Now, wellnigh disheartened, he stopped, on his way home, to confer with his family physician, Dr. Rothmann. That good man suggested that the boy might like medicine, and accomplish great things in natural history. He offered to take him into his own home, and give him lessons in physiology,



CATHEDRAL, UPSALA.

which kind proposal the father accepted, though with little faith. The doctor also taught him botany, and Carl grew happy under the new *régime.*

The next year he was sent to the University of Lund, with the following not very creditable certificate from the head master of the Gymnasium: "Youth at school may be compared to shrubs in a garden, which will sometimes, though rarely, elude all the care of the gardener; but if transplanted into a different soil may become fruitful trees. With this view, therefore, and no other, the bearer is sent to the University, where it is possible that he may meet with a climate propitious to his progress." Through a friend entrance was obtained without showing the obnoxious certificate.

Carl took lodgings at the house of Dr. Stoboeus, physician to the King, who gave him access to his minerals, shells and dried plants. Delighted at this, the youth at once began to make a collection of his own, and glue them on paper. He longed to gain access to Dr. Stoboeus's library, but how should it be accomplished? Finally a young German student, to whom he taught physiology, surreptitiously gained the books needed, and young Linnæus spent nearly the whole nights in reading. The doctor's aged mother did not understand why their lódger kept his light burning into the small hours, and besought her son to investigate. He did so, and found the crestfallen Carl reading his own library books. He forgave the student, took him to his own table and treated him as a son.

Advised by Dr. Rothmann to go to Upsala for better medical opportunities, he proceeded thither, and here began his bitterest poverty. His father could give him only forty dollars. As he was unknown, and without influence, he could obtain no private pupils. Starvation actually stared him in the face. He says "he was obliged to trust to chance for a meal, and in the article of dress was reduced to such shifts that he was obliged, when his shoes required mending, to patch them with folded paper, instead of sending them to the cobbler." Often hungry and half clothed, there seemed nothing before the poor Swedish lad but obscurity and early death.

One day, in Autumn, as he was examining some plants in the Academical Garden, a venerable clergyman, Dr. Olaf Celsius, saw him, and asked him where he came from, how long he had been at the college, and what he knew about plants. He, too, was interested in botany, and was preparing a work on the plants mentioned in the Bible. Perhaps something in Carl's face or manner touched the minister's heart, for he asked him to go home with him, and soon offered him board in his own house, and gave him access to his valuable library.

The tide of struggle was beginning to turn. Some pupils were obtained, and a little money flowed into the empty pockets. At twenty-two, by a close examination of the stamens and pistils of flowers, he decided upon a new method of arrangement by the sexes of plants, which, in after years, became the basis of his great fame. This procured him the appointment of Assistant Lecturer to Dr. Rudbeck in the Botanical Garden, where, but a year before, he had asked to be the gardener!

He still had little money, but, what was equally useful, some leisure time. He began his great works, which were not completed for seven years, "Bibliotheca Botanica," "Classes Plantarum," "Critica Botanica," and "Genera Plantarum," "letting," as he said, "not a minute pass unoccupied during his residence at Upsala."

Scarcely had he begun this valuable work when the envy of one of the professors became as hard to bear as his previous poverty, and, through friends, he obtained an appointment to study the natural history of Lapland. It was a hazardous expedition for a young man of twenty-five. Now he climbed steep rocks, "which," he says, "broke loose from a spot which my late guide had just passed, and fell exactly where I had been, with such force that it struck fire as it went." Once, when floating down a river, the raft parted in the middle, and he narrowly escaped drowning. "All my food," he says, "in those fatiguing excursions, consisted, for the most part, of fish and reindeer's milk. Bread, salt, and what is found everywhere else, did but seldom recreate my palate." He traveled nearly 4,000 miles, mostly on foot, often through bogs and marshes, with the water to his knees, yet always cheerful, always enthusiastic. On presenting his report to the University, on his return home, they gave him about fifty dollars for his traveling expenses for five months!

A single incident shows the tender heart of the young explorer. Very few birds were visible except the ptarmigan. He says: "The little Alpine variety of the ptarmigan was now accompanied by its young. I caught one of these, upon which the hen ran so close to me that I could easily have taken her also. She kept continually jumping round and round me, but I thought it a pity to deprive the tender brood of their mother; neither would my compassion for the mother allow me long to detain her offspring, which I returned to her in safety." Tenderness to animals seems to be a striking characteristic of great men and women.

During the journey, he found a modest little flower in the great northern forests, almost hidden in the moss, and this he named after himself, *Linnæa borealis*, thinking it was so like him, expanding in obscurity. He chose for his motto, "Tantus amor florum," so great is the love of flowers.

On his return to Upsala he began courses of private lectures in medicine, but so bitter was the envy of the before-mentioned professor, that the Archbishop was prevailed upon to prohibit private lectures. Thus deprived of a livelihood, Linnæus turned his attention to mineralogy, visiting the Swedish mines. The Governor of Dalecarlia was so pleased with him that he engaged him to investigate the productions of his country. Here he fell in love with the daughter of John Moroeus, a well-to-do physician.

Sara Elizabeth reciprocated the affections of the young man, who was told by the father that he must wait three years for a final answer; for, in truth, Linnæus's financial prospects were not bright. The University of Upsala did not want him, and there seemed to be no hope of writing or publishing his books on botany. But a man usually achieves little who does not fight his way at every step. Now, indeed, for love's sake he must make his mark.

After saving about seventy-five dollars he decided to go to Germany and take his doctor's degree, but first he must visit his home, out of which his beloved mother had gone at forty-five. "Alas! alas my mother!" was all he could say, as the tears fell fast upon her grave. She had witnessed his poverty and his heroism; she was not to witness his great renown.

At Hamburg he spent a month, receiving civilities from many scientific men. He showed his good sense in feeling in no wise humiliated because he was poor, a valuable lesson for poor young men and women to learn. At Leyden good fortune came to him. Dr. Gronovius was so pleased with the manuscript of his "Systema Naturæ" that he requested to publish it at his own expense. By his advice Carl waited upon the celebrated physician, Boerhaave, and after eight days gained admittance. So famous was this man, that when the Emperor of China sent a letter to "Boerhaave, the famous physician in Europe," it easily reached him. He advised a rich banker, Mr. Clifford, to have Linnæus describe his magnificent collection of plants, and to send him to England and elsewhere to collect specimens for him. This was indeed a blessing. "Here," he says, "I lived like a prince, and had one of the finest gardens of the world under my inspection." A society in Amsterdam advanced the plates for his "Flora Lapponica," and fame seemed really to be coming at last.

In his visit to England, Sir Hans Sloane, who founded the British Museum, looked upon him coldly because he had suggested a different system in natural history from his own! At Oxford Dillenius said to friends, sarcastically: "See, this is the young man who confounds all botany!" Linnæus felt hurt, and when about to take his departure from the city, asked the scientist why he had treated him thus. After the young student had explained his work, Dillenius became his warm friend, and pressed him to stay, and even to share his salary with him. Linnæus was greatly pleased with London, and when he saw the golden purse in its green leaves, fell on his knees before it.

On his return to Germany he went to the deathbed of Boerhaave, whose parting words were: "I have lived out my time and done what I could. May God preserve thee, from whom the world expects much more! Farewell, my dear Linnæus!"

He now hastened to the idol of his heart in Sweden, and what was his amazement to find that the friend to whom he had intrusted the correspondence had been trying to win Sara Elizabeth for himself! However, matters were amicably adjusted, and the long-waiting lover became engaged.

He repaired at once to Stockholm to begin the practice of medicine, still keeping as near Upsala University as possible. And here troubles began anew. He says: "Being unknown to everybody, people were unwilling to trust their lives in my hands. Nay, they even hesitated to trust me with their dogs! Abroad, I had been honored in every place as Princeps Botanicarum; but in my own country I was looked upon as a *Klim*, newly arrived from the subterranean regions! No one cared how many sleepless nights and toilsome hours I passed. Had I not been in love I would certainly have left Sweden and gone abroad."

After a time a fortunate cure effected by him brought him speedy popularity. "No invalid could now recover without my assistance. I was busy from four in the morning till late in the evening; nor were my nights left undisturbed." He was soon chosen a member of the Upsala Academy, and at the request of the King, through his tutor, Count Tessin, gave public lectures on botany and mineralogy.

And now the rising botanist desired that he might claim his bride. They were accordingly married June 26th, 1739, when Linnæus was thirty-two. Dr. Moroeus had waited long enough to see that his daughter was making no mistake. Life now flowed on smoothly. If the "little wife," as he called her, governed him with no very gentle sway, in after years he always regarded her as "one of the choicest gifts bestowed upon him."

His medical practice brought him plenty of money, but he wrote to a friend: "Once I had plants and no money; now what is money good for without plants?" Soon the desire of his heart was granted, and he was made Professor of Botany at Upsala University, together with the superintending of the Botanical Garden.

Now he says: "I render thanks to the Almighty, who has ordered my lot so that I live at this day; and live, too, happier than the King of Persia. I think myself thus blessed, because in this academic garden I am principal. This is my Rhodus, or, rather, my Elysium; here I enjoy the spoils of the East and the West, and, if I mistake not, that which far excels in beauty the garments of the Babylonians and the porcelain of China."

His fame grew rapidly. He published, in 1745, his "Flora Suecica," and a year later his "Fauna Suecica," a description of Swedish plants and animals. His lectures soon, from their enthusiasm and eloquence, brought listeners from all parts of Europe. The University grew from 500 to 1,500, young men coming even from America to hear the great botanist. During the Summer he made excursions twice a week, often at the head of 200 students, and when some rare plant was discovered, the news was announced to the others by horn or trumpet. His scholars, imbued with his spirit, went over the world in scientific investigation. Some died in the Arabian deserts; some in the swamps of Africa. From foreign students he would take no fee, as he desired to show them how he loved his work. Once he said to a German student: "Tell me, candidly, are you rich, and can you afford it? If you can, then give the money to my wife; but, if you be poor, so help me Heaven, I will not take a single farthing from you!"

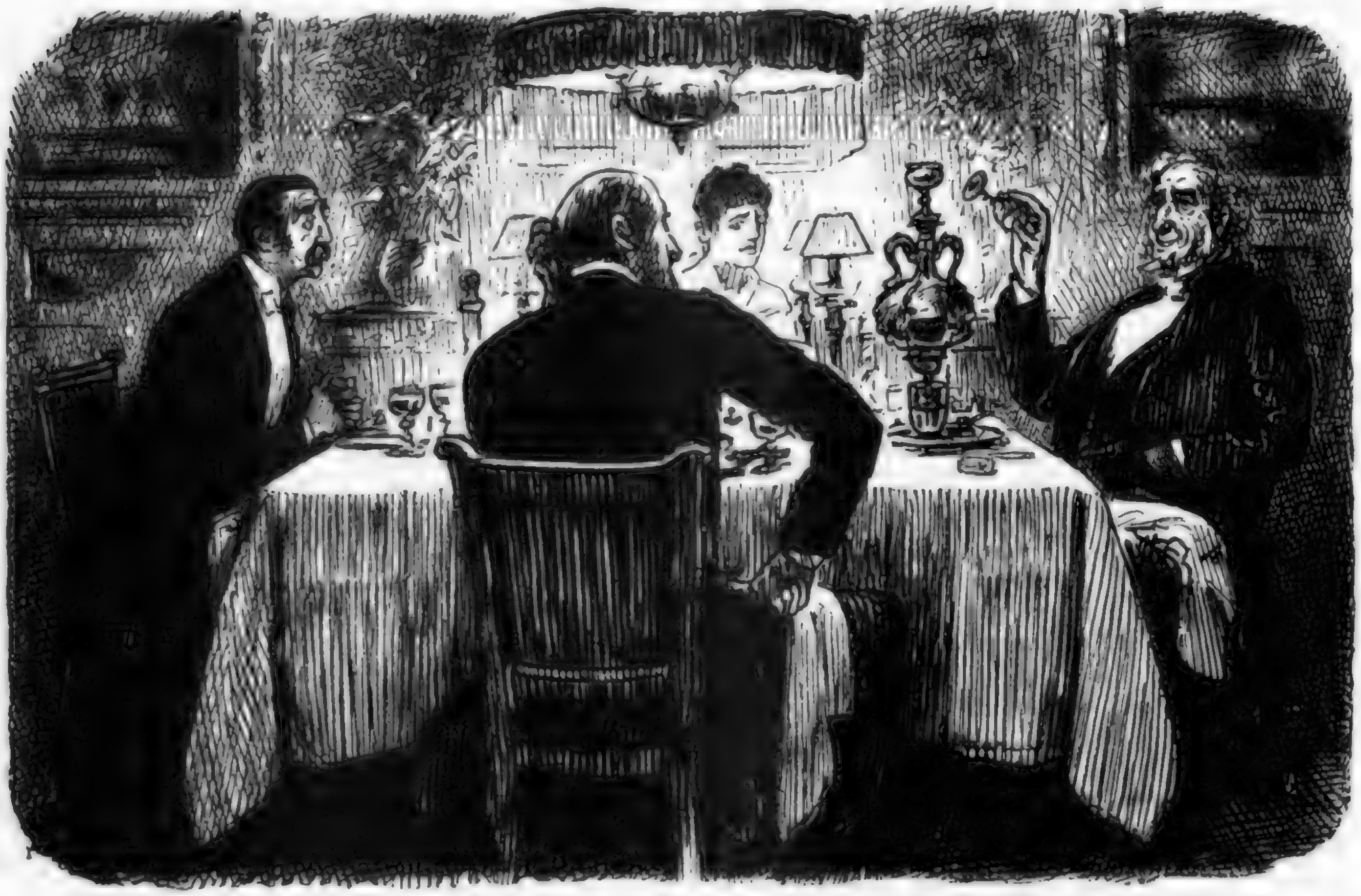
Most of the scientific societies of Europe made him a member after his great works were published. The Imperial Academy called him "Dioscorides Secundus"; a gold medal was struck in his honor in 1746, and the King made him Dean of the College of Physicians. He published two valuable medical books, and received the honor of the Polar Star, never before conferred for literary merit. He was made a noble, and took for his motto, "Famam extendere factus," adorning his crest with the little flower which he discovered in his poverty. He was made Rector of the University, holding the position for several years. How different from the time when he could obtain only a chance meal, and covered up the holes in his torn shoes!

He bought two estates, living at one of them—Hammerby—for fifteen years. In 1774, when he was sixty-seven, he suffered an attack of apoplexy in the Botanical Garden, and, two years later, another stroke made him a paralytic. When he could no longer walk, he used to be carried to his museum, and look long and earnestly at his treasures, gathered from every clime. His memory so failed him that he mixed the Greek and Latin letters, and forgot even his own name. On the 10th of January, 1778, death came in his sleep.

The University went into mourning, the King made a public address, and the whole nation regarded it as an irreparable loss. His museum and library were sold, after a time, by the wife, to Sir James E. Smith, the founder of the Linnæan Society, of London, where these treasures are now to be seen, and most of the 180 works which he published during forty-five years. The struggling boy truly astonished the world with his knowledge.

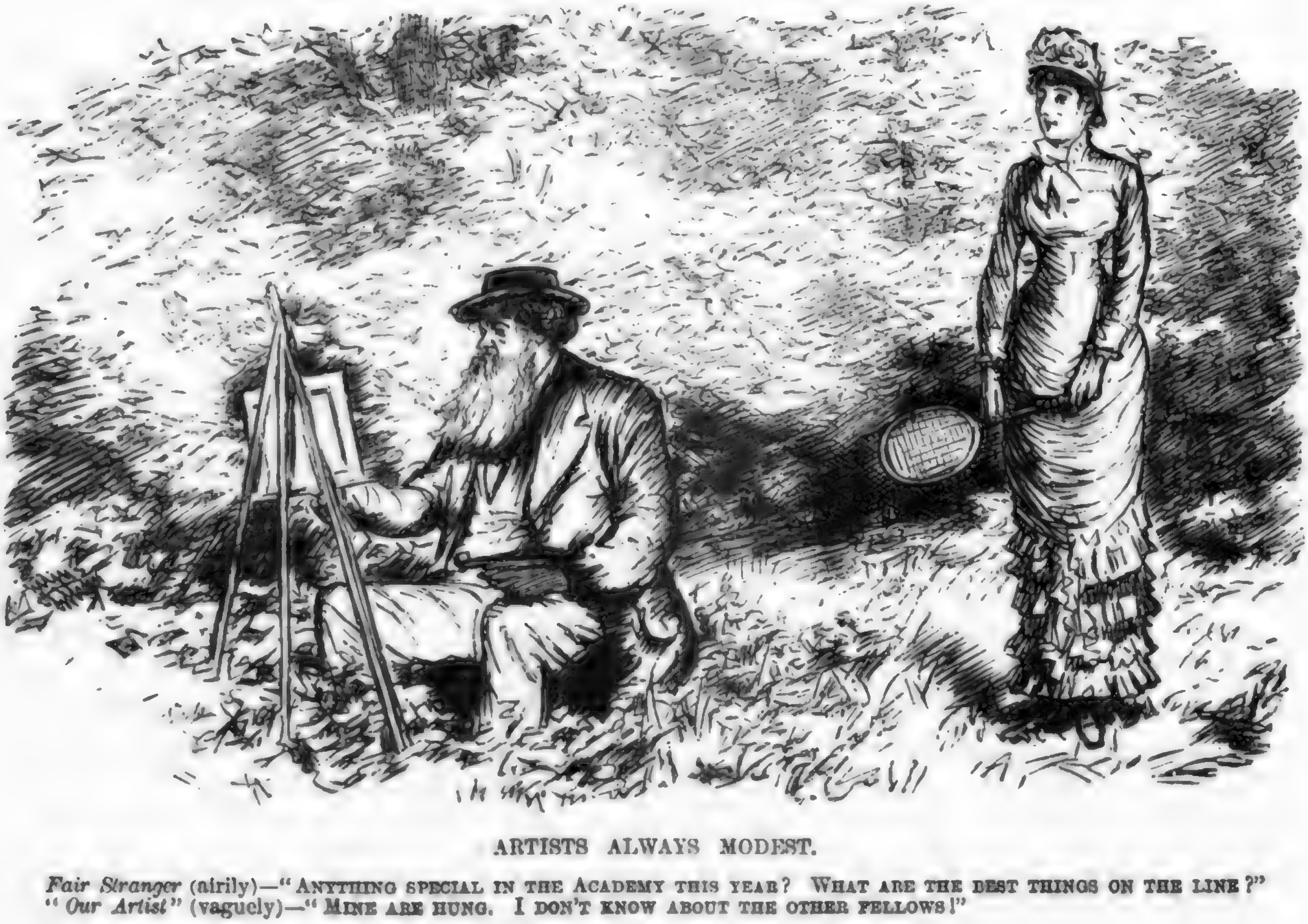
Of his six children, the oldest soon became Professor of Botany, to assist, and then succeed, his father, but he lacked the parent's just and honorable love of fame. The oldest daughter inherited much of his ability, first discovering at night the luminous property of the nasturtium-flowers. Sara Elizabeth survived her noble husband many years, and now lies beside him in the Cathedral.

XUM



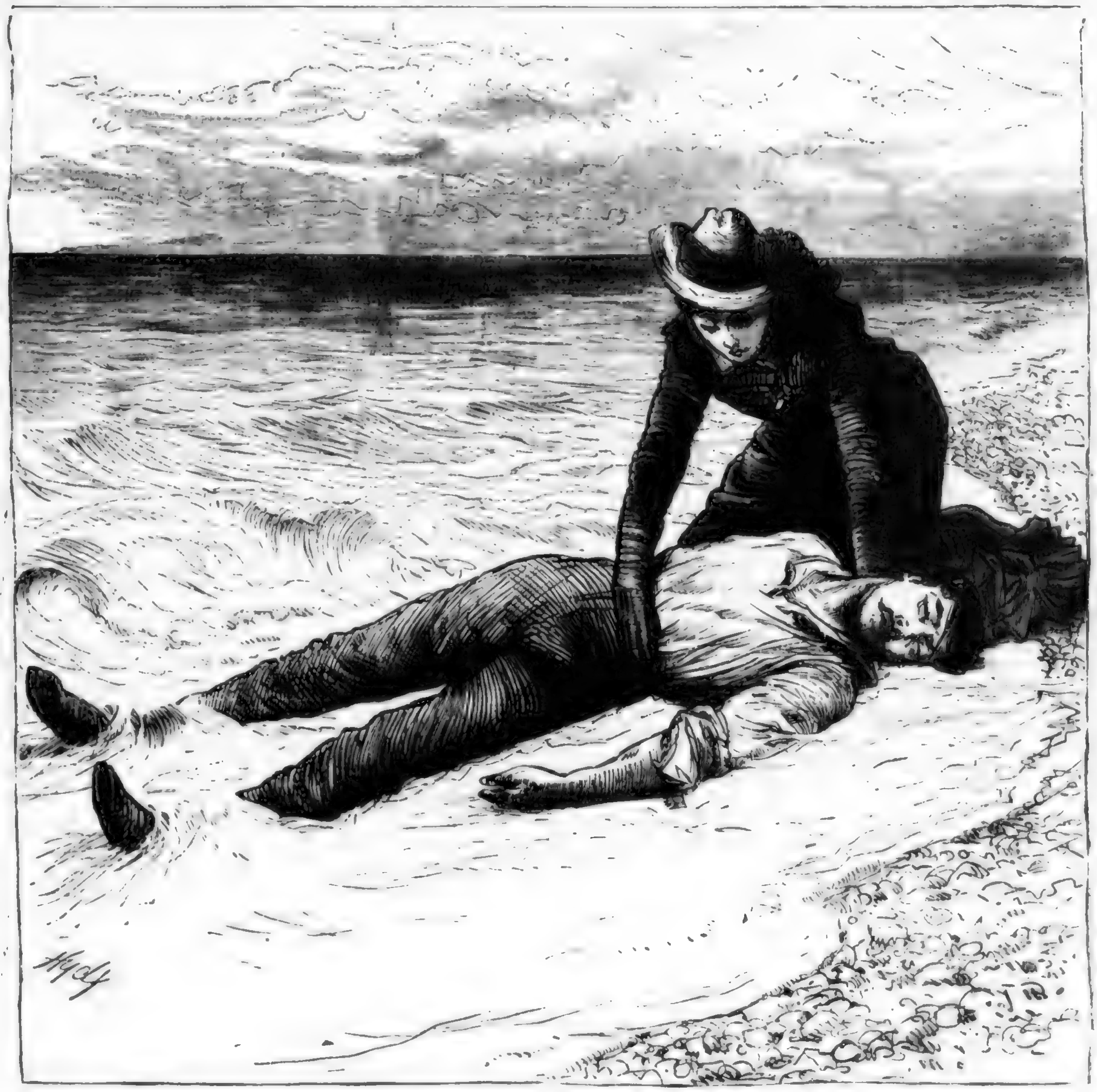
SOCIAL AGONIES.

BROWN (THE EMINENT AND WITTY LAWYER,) WOULD BE THE MOST DELIGHTFUL COMPANY IN THE WORLD, BUT FOR A HABIT HE HAS, WHEN HE HOLDS FORTH, OF UNCONSCIOUSLY BUILDING THE MOST ELABORATE AND TOP-HEAVY STRUCTURES WITH HIS HOSTESS'S BEST WINEGLASSES AND DECANTERS.



ARTISTS ALWAYS MODEST.

Fair Stranger (airily)—"ANYTHING SPECIAL IN THE ACADEMY THIS YEAR? WHAT ARE THE BEST THINGS ON THE LINE?"
"*Our Artist*" (vaguely)—"MINE ARE HUNG. I DON'T KNOW ABOUT THE OTHER FELLOWS!"



BY THE SEA.—"SOMETHING ROSE TO THE CREST OF AN INCOMING WAVE, REMAINED AT THE TOP, SWEPT NEARER AND NEARER—NEARER AND NEARER. THE WATERS LAID IT AT HER FEET."

BY THE SEA.

CHAPTER I.

THEY parted by the sea. It was morning. It was June. The sky was blue and deep, without a cloud. The sea was calm. The waves were friends, running up the smooth beach toward them, then slipping down into the deep again.

Edmund Picton had his arm about her; her head was upon his shoulder; her eyes looked up into his. It was a goodly sight indeed; he, so strong and tall and dark; she, with eyes like the June sun, and with hair in which the June sunshine seemed to have lost itself.

He stooped and kissed her.

"You'll always be true?" he said, eagerly.

"Always," she answered him, passionately; "always."

"Whatever happens in the future?"

"Whatever happens."

"Whatever men may say of me?"

"Certainly; you know I love you."

Edmund Picton looked away over the dancing waves. His face grew a little more stern than she had ever seen it in their month of acquaintance, and his lips were closely shut and a trifle white. A sudden mist seemed to shut away the Summer scene; he shivered despite the sunshine.

Then he stooped and kissed her again, held her closely for a long minute, then left her without another word.

He walked rapidly away, leaving the sunny sand and the dimpling waves behind him.

Allie Arncon stood where he had left her, and watched the sky and sea.

He followed his shadow toward the forest and the hills.

She remained with the sunshine all about her.

XUM

Chapter II.

August followed July as July had followed June, and Allie Arneon had heard no word from her lover. If he had died he could not have gone more utterly out of her life. Sometimes she would almost have felt it to be a dream, only that his ring shone on her finger, and his kisses still burned on her lips.

Edwin Farrand had come in July. Edwin Farrand had met Allie Arneon. Edwin Farrand had allowed himself to say that he would win this woman—if he could. He had said it to none but himself; but he had said it only under his breath; he had said it very earnestly indeed. He meant it all.

Some one had mentioned Edmund Picton to Edwin Farrand, and he had scowled when he heard the name. Then he had let the same name fall carelessly from his lips as he walked down the beach with Miss Arneon, and she had blushed. One would have thought that Mr. Farrand might have scowled again if his looks and manner toward her meant much, but he did not; indeed, when he was alone that night, with the darkness and his cigar, he laughed a little to himself.

It was a strange laugh, an indescribable laugh. Some ladies, just ahead of him, quickened their steps at the sound of it. A gentleman, just behind him, hurried to get nearer. The man wondered; the ladies feared; it was a strange laugh, indeed, to move those who heard it as it did.

After that, Mr. Farrand was as constant as Miss Arneon's shadow; he was more—for she had her shadow only in the light, while he followed her whether it was bright or stormy, whether it was day or night.

* * * * * *

Farrand stood at the door of the little railroad station, one evening, when the train came. An observer with curiosity (or with a logical mind) might have found it time to wonder why it was that this gentleman found this place the most enjoyable one in which to smoke his cigar every night. Possibly he was looking for some one.

Some one came that night. Scarcely the one he was looking for, to judge by his face; not one very welcome, if the nervous haste with which he threw away his half-smoked weed was an index to his feelings.

Some one behind the newcomer heard a groan from him, and wondered what had happened to trouble one who had been so genial and companionable upon the cars.

Then the two men met; they shook hands heartily; no one could have doubted their friendship; no one but a keen observer—at least.

"Ah, Farrand, glad to see you here," said one.

"Picton, this is indeed an unexpected pleasure," cried the other.

Then they walked on in silence.

"Come this way," said Farrand, before they had reached the streets of the little seaside village.

He pointed down a lonely road, leading away among the trees.

"I—I——" began Picton.

"I understand all that," said Farrand, with a gesture of impatience, "but I've something to say to you. Let us walk this way."

Picton went with him without a word.

Twenty rods down the road he turned and faced Farrand.

"What is it? I beg you to be brief. I have no time to waste," he said.

"Possibly you've more time to spare than you think," said Farrand, lazily. "You know Miss Arneon is here, I suppose?"

"Yes."

"You love her, so the people here say."

"I do."

The words were short and full of pain.

Farrand leisurely lighted another cigar. After a long pause he spoke.

"I love her, too," he said, looking straight in Picton's eyes.

"You—you love her?—your love is an insult to any woman!" cried Picton.

He stepped forward, and raised his hand as though he would strike the other, but thought better of it, if he had thought of violence at first.

"I don't understand why my love is an insult to a woman," said Farrand, quietly; "perhaps you will be so kind as to tell me."

"I will. You've a wife in Chicago now. You told me that yourself."

Farrand laughed—a cunning, heartless, mirthless laugh.

"She's dead—dead months ago," he said.

"Then there was a story of another one in New York," said Picton, hesitatingly.

Farrand's face grew dark with passion.

"That was a lie—a malicious lie; do you suppose I am weak enough to put myself in danger from the law, as that would have been? I didn't know you'd ever heard that story, though. Where did you hear it?"

"Never mind," said Picton, "we were speaking——"

"Never mind!" interrupted Farrand. "I do mind. Perhaps you believe the story?" he said, with a sneer, moving threateningly toward Picton.

"It was very circumstantial—very plausible," said Picton, with much gravity.

"Well," drawled Farrand, with much indifference, "it's of little consequence. To return to our subject, I love Allie Arneon; I'm free to marry her—what are you going to do about it?"

"What! what! what!"

"Yes. Mr. Edmund Picton, what are you going to do about it?"

"Miss Allie Arneon is my promised wife, sir, and in God's good time she will be my wife in truth. I've paid my debt to you over and over again; I shall do nothing more for you; I have made the last sacrifice I shall ever make for you."

Farrand waved his hand deprecatingly.

"That is very well," he said—"very well indeed. It's very different, though, from what you said one bitter Winter day, something like ten years ago. Do you remember what you said then, my dear friend?"

"You made me your debtor for life; I know that as well as you do. You saved my life——"

"Yes," interrupted Farrand, "I saved your life. I saved it when no one else dared try. It's a dangerous feat, diving through an air-hole and searching for a drowning man under the solid ice. Did I hesitate? Did I cower and tremble as some of those did who had known and loved you all their lives? Did I fail?"

"You've been the evil genius of my life," cried Picton; "you had better have let me die than have followed and tortured me as you have done."

"Possibly. You are, doubtless, a better judge of that than I am. But the fact is, I did save your life, and my creed is, if you have a friend, *use him*?"

"I believe you. Do you know how much money I have given you since then?"

"I haven't the slightest idea; I should never think of keeping an open account with gratitude."

"It has been over twenty thousand dollars; more than two thousand dollars a year."

Farrand raised his eyebrows.

"That doesn't seem much, everything considered," he commented, pleasantly.

"Perhaps not for a gambler——"

Farrand bowed.

"A drunkard——"

Farrand smiled.

"And a libertine."

Picton paused.

"Have you quite finished?" asked Farrand.

Picton made no answer.

"Because, if you have, I want to ask you a few questions. Why did you leave here so suddenly last June?"

"I should think *you'd* ask!" cried Picton, white with indignation.

"Why?"

"Why? Do you ask why? I know you wrote it; I know it just as well as though you had told me you had done it."

"You attended to it, though, without a word of objection."

"Certainly. I remembered the awful afternoon when I went under the ice; I remembered what I told you with my cold lips that day."

"You did? That was kind. Your uncle believes in you still, I suppose?"

"Believes in me? Of course he does. He knows the truth."

"Did it ever occur to you that it might be difficult to prove the truth?"

"What do you mean?"

"This: That unless you go away without seeing Miss Arneon, I'll telegraph to the authorities at New York."

"Well, suppose you did?"

Farrand laughed again.

"You know it wouldn't be well for you if I did," he said.

"You know you are the guilty man," said Picton, hotly.

"Yes," said Farrand; "but I can prove that you are. It is a disadvantage to be innocent."

The two men walked on together in silence.

"Well," said Farrand, at last, "do you consent."

"Never!" cried Picton. "I'll face everything your wicked soul can bring against me before I'll be as false as that."

And Farrand knew by the other's tone that he had failed.

He had one or two other resources left. He paused a moment to grow calm enough to attempt another line of action.

"I believe I've won Allie Arneon's love," he said, after a little.

"You lie! She promised to be true to me always," returned Picton.

Farrand snapped his fingers.

"That for woman's promises!" he said. "I tell you I am sure she cares for me."

"She's never given you a word of hope; I'd swear to that," said Picton.

"Frankly and honestly," said Farrand, "she never has. But there are looks and actions——"

"Bah! she loves me. I'll not banter words with you. Let us go back."

"But suppose that she no longer cared for you?"

"She does."

"Suppose it were true that she loved me better?"

"You are unworthy."

"Suppose I could make her happier than you can?"

"That is impossible."

"But if——"

"If——"

"If I were to ask her for her love—ask her and win it——"

"It would kill me."

"Will you let me try?" Will you let her choose between us? Will you let me see her to-night? I swear that if I fail I will go away to-morrow, and never come back!"

Farrand stood still. The night wind muttered among the trees; the hoarse roar of the sea came to them through the wood; the distant flash of lightning shone up into the starlit sky.

It was a crisis. Only Farrand—Farrand and Omnipotence—knew how terrible a one.

"If you fail you will go?" faltered Picton.

The man who hesitates is lost. Farrand drew his hand from his pocket; there was no need of the pistol which he had held for many minutes.

"Yes," he said, "I will go."

"Remember," insisted Picton, "your threat has availed nothing."

"Nothing," assented Farrand; "I never meant it; it was folly."

"And I know my love is true to me."

"Undoubtedly, old fellow, undoubtedly. I only ask one chance; I only ask one evening to try my fate. After that you will have love, happiness, heaven."

"And you ask it——"

"In the name of friendship; in the name of the life I saved? Yes, certainly."

Picton extended his hand; Farrand's grasp closed over it.

"I will not go to Miss Arneon until you have seen her," said Picton.

For one moment Farrand held the hand he had taken.

"My dear, dear friend!" he exclaimed, brokenly.

Then he strode rapidly away through the forest, smiling like a fiend.

Chapter III.

The storm broke at midnight. The waves whirled in dizzy masses, and came thundering far up on the beach; the thunder and lightning were grand and awful.

Farrand drew Allie Arneon into a sheltered nook among the rocks; his hand trembled. Had it been light enough for her to have seen, she would have known that his face was very white.

A vivid flash showed a boat a half-mile from shore.

"How terrible!" she cried, clinging to him.

"Terrible indeed!" said his lying lips, while he laughed silently to himself.

"Edmund Picton came to-night," said Farrand.

He could feel her tremble with excitement, but she made no answer.

"He left very suddenly last June, did he not?"

"Rather, I—I believe."

"'Twas a strange affair. He had spent a great deal of money. He forged his uncle's name to a check for an immense sum. He was discovered, made to meet the payment of the check, and his uncle forgave him. He tried to fix the guilt on another—on a man who had saved his life. He——"

Farrand paused. The lightning lit up the scene; the girl at his side tossed a ring from her far out into the waves; it glittered for a moment, then disappeared for ever; the boat, far out, was floating bottom up.

"I love you," whispered Farrand.

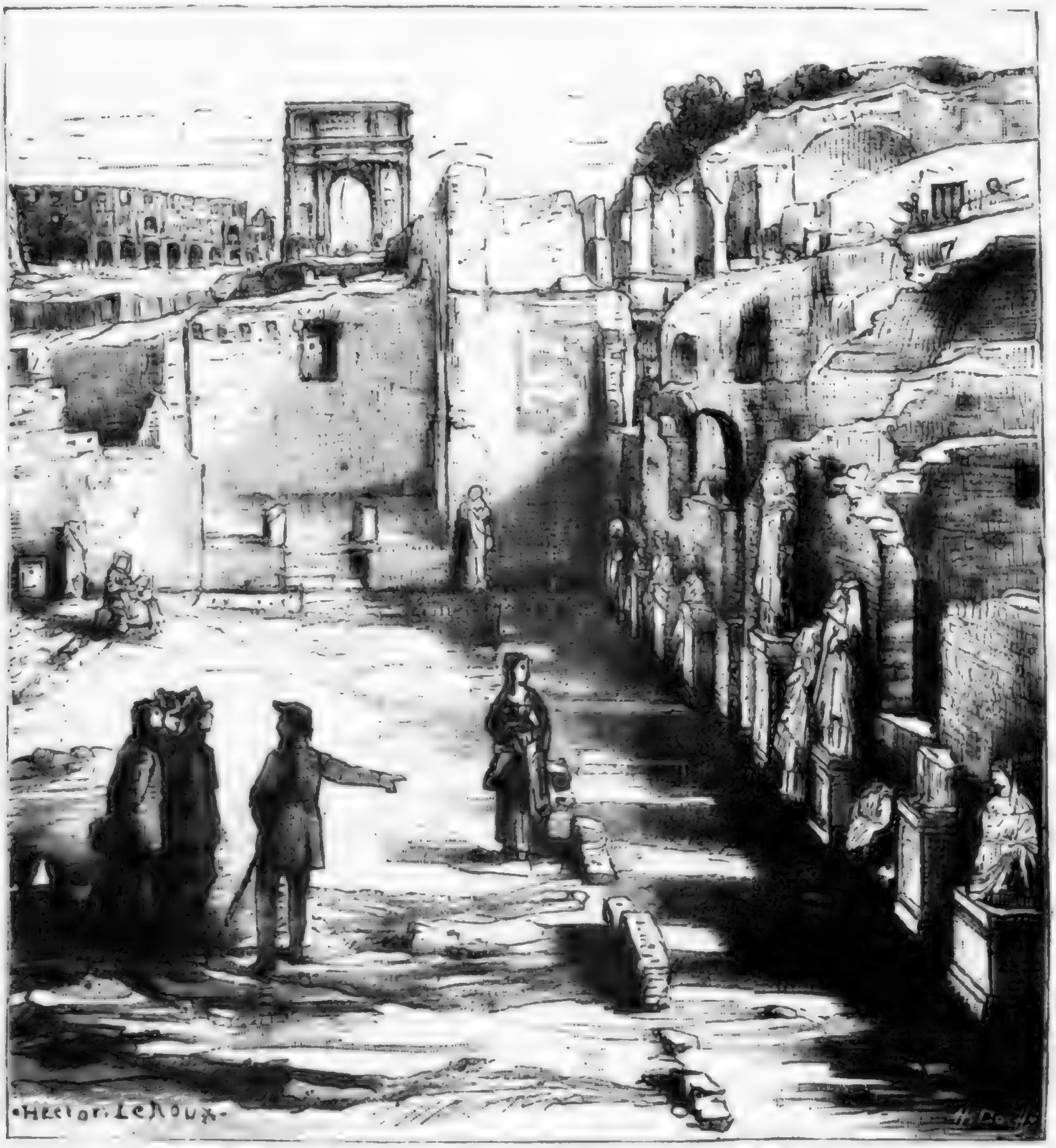
She pushed him from her.

"Cannot you learn to love me?" he begged.

"No," she said.

"Will you marry me?" he said; "I will not ask your love. I ask only that."

She drew away from him. For hours they stood there. He knew she was weeping.



VESTA AND THE VESTALS.—THE HOUSE OF THE VESTALS AT ROME, DISCOVERED IN 1877.—SEE PAGE 358.

Then dawn came. She turned a white face toward him.

"I have lost all faith in humanity. I will marry you," she said.

Farrand laughed. He pointed down at the waves.

"Had you refused me, I should have jumped in there," he said.

She shut her eyes and shuddered.

"And taken you with me," he whispered in her ear.

Then they descended to the beach.

Two men came from opposite directions.

"I want you," said one.

"And I," said the other.

"For bigamy," said the first.

"For forgery," said the second.

And they led him away up the sands.

She turned her eyes seaward. The sun was coming up. The storm was done, the heavens were all aglow. Beneath, the dark and sullen deep roared and raged. Something rose to the crest of an incoming wave, remained at the top, swept nearer and nearer—nearer and nearer—nearer and nearer.

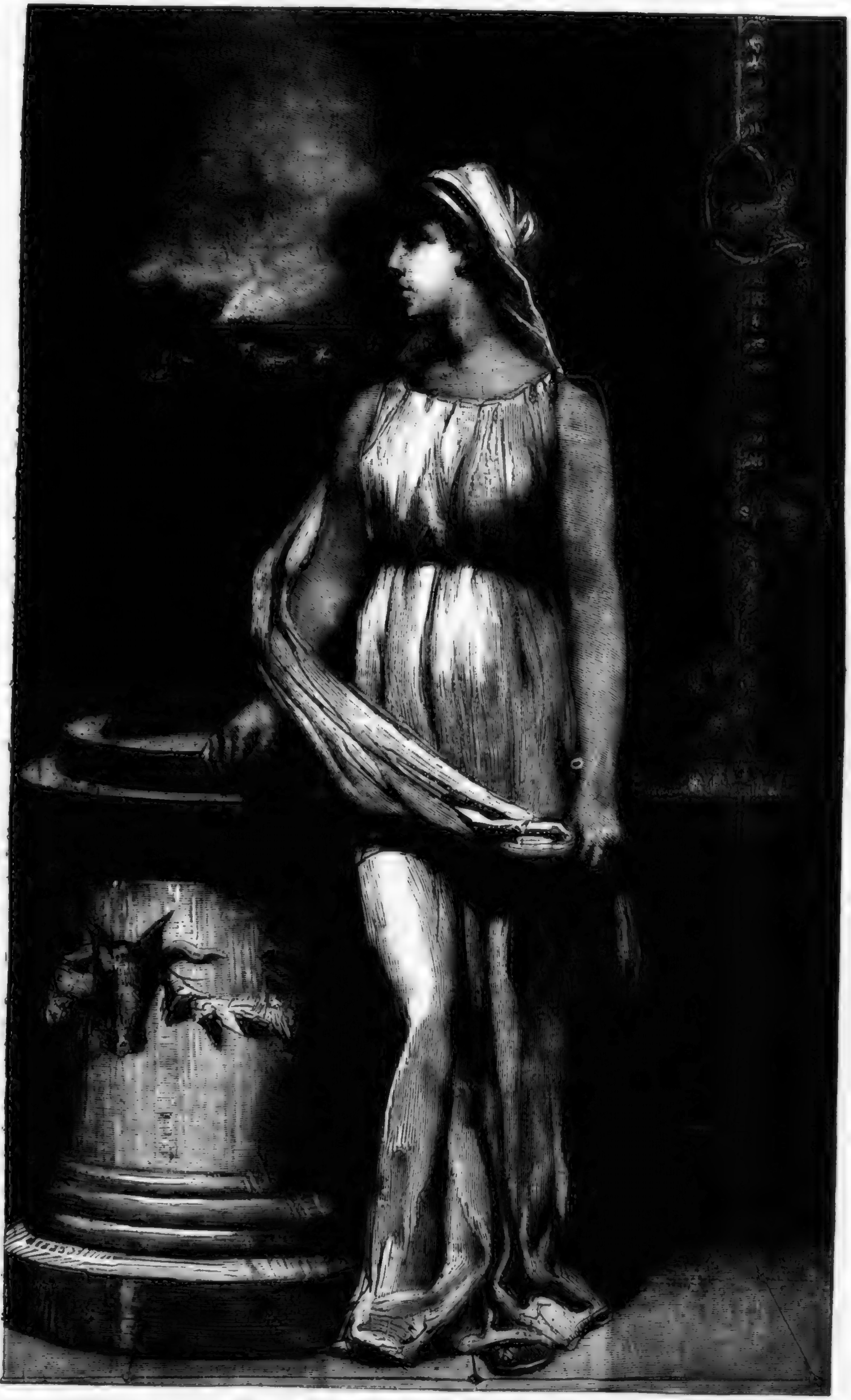
The waters laid it at her feet.

One look from the dying eyes of Edmund Picton, in which so much of love and honor lay that love and truth could never doubt again.

One look from the eyes of Allie Arneon, kneeling on the water's edge with her lover in her arms, a look which will make his heaven brighter, beyond this storm-swept world, until she comes.

And then——

"It ended as it began,
They parted by the sea."



VESTAL WATCHING THE SACRED FIRE.—SEE PAGE 358.

XUM

VESTA AND THE VESTALS.

By Marc F. Vallette.

It is well known to all who have ever visited the Eternal City that it is next to impossible to dig up the streets, or, indeed, any part of the city, without striking upon some work of art, or upon some atrium or court, or building filled with art treasures that have been buried and forgotten ages ago. During a recent visit to Rome the writer of this article was driving past the venerable Church of the Minerva (the titular church of the late Cardinal McCloskey), when his attention was attracted by a number of persons watching some workmen, who appeared to be engaged in repairing water-pipes, or the like. Upon drawing nearer, he ascertained that these workmen had struck upon what proved to be a red obelisk some twenty-five or thirty feet long, and in an excellent state of preservation. Similar discoveries are made from time to time, and many of them prove of great historical interest, besides their artistic value. Thus, in 1877, while some excavations were being made under the direction of Dr. Bacelli, then Minister of Public Instruction, the workmen came upon what proved to be the Atrium of the Vestals, of which a striking illustration is here produced, showing also a distant view of the Coliseum and the Arch of Titus. Search had long been made for the real site of the habitation of the Vestals, notwithstanding the fact that there are extant very precise directions given by authors who were contemporaneous with them. Martial sends a messenger to the house of Proculus, which was near the Palatine: "Go along the Temple of Castor, near the ancient Vesta and the abode of our Virgins." Livy located it in the Via Nova, "the spot," said he, "upon which a chapel rises over the Temple of Vesta." The Via Nova itself was discovered only a few years ago, some seven meters above the House of the Vestals, between the Via Sacra and the Via Victoria, which is situated some twelve meters higher up. These two streets ran in the same direction along the Palatine Hill. Tradition tells us that the Temple of Vesta, which is circular in form, was built by Numa Pompilius, the second King of Rome. A sketch of the Vestals and their occupation may not be uninteresting.

The Vestals derive their name from Vesta, the Roman name of the goddess of the home or hearth, or, as some authors express it, of fire. She was first honored in Phrygia, and was taken to Rome by Æneas. According to Hesiodic theogony, she was the daughter of Cronos (Saturn) and Rhea, the mother of Jupiter and of some of "the more aristocratic" gods. In Greece her priestesses were widows; in Rome they were maidens, and were known as Vestal Virgins. At first they were four in number, but under Servius Tullius they were increased to six. Vacancies were filled by the King, as Chief Pontiff. He selected twenty young patrician maidens of from six to ten years of age. These were to be without blemish, and to give promise of future beauty. The divine will, represented by lot, designated which of these was to be consecrated priestess. When the selection was made the Chief Pontiff advanced, and taking the hand of the chosen one, said: "I take thee; thou shalt be priestess of Vesta, and shalt perform the sacred rites for the safety of the Roman people." He then led her to the Regia, which some suppose to have been the house of Numa, and which was the Pontiff's residence. Behind it were the Atrium and Temple of Vesta. In the Regia the novice's locks were cut off, and she was clad by her sisters with a white garment.

It was the duty of these virgins to watch by turns a fire which burned night and day on the altar of Vesta. If by any accident this fire should happen to be extinguished, it was regarded as a terrible omen for Rome, and the hapless virgin through whose neglect this accident had happened was scourged with rods in a dark place by the Chief Pontiff, who afterward relighted the fire by rubbing together two pieces of wood taken from the tree of good fortune, *Felix arbos*, or, as in later times, by concentrating the rays of the sun through a burning-glass. There seems to have been no scarcity of these *arbores felices*, for the groves of that day abounded in oak, holm-oak, beach and mountain-ash.

The Vestals were also required to make libations, offer sacrifices, and perform a peculiar ceremony, which may have had some connection with their vow of chastity. When, on April 15th, the Pontiffs immolated thirty pregnant cows, the embryos were taken and committed to the *Maxima Virgo* or Chief Vestal, who burned them and carefully kept the cinders, which she distributed among the people on the day of the Palilia, that they might make expiatory offerings of them. This festival was celebrated on April 21st, the anniversary of the foundation of Rome by Romulus. The principal rites were the purification of the stables, flocks and herds by fire and smoke, and the offering of cakes, millet and milk, followed by prolonged jollity and feasting. Varro relates that at about this time, too, the Vestals threw into the Tiber, from the top of the Sublician Bridge, twenty-four osier figures of old men, to replace the human victims that they no longer threw in after the time of Hercules.

It was the custom of the Vestals, every morning, to cleanse the temple with water drawn from the fountain of Egeria in a vessel with a large mouth, and ending with a point, *futile*, so that it could not be set down without the water being spilled. In connection with this word, it may not be out of place to state that Servius asserts that this is the origin of the word *futilis*: "A man incapable of keeping what is confided to him." From this source, too, comes our English word *futile*, which Webster defines as something "that easily pours out."

The Vestals enjoyed the protection of Fascinus, the god who averts evil spells. They had also the care of holy relics, pledges of the duration of empire, *fatale pignus imperii*. These relics were preserved in the most secret place in the sanctuary, and consisted of the Palladium, a small wooden image of Pallas, or Minerva, thrown down to earth by Jupiter. It is said to have fallen in the vicinity of Troy, where Ilus, the founder of that city, who had just prayed for favorable omens, looked upon it as an answer to his prayer, took possession of it, and built a sanctuary for it. It was long a tradition that Troy could never be taken while this image remained in the city. It was stolen by Ulysses and Diomedes, and was carried to Greece and afterward to Rome. The Romans, like the Trojans, came to regard the preservation of this figure as the only means of the safety and perpetuation of the Roman power. This statue is said to have been brought to Italy by Æneas. The Chief Vestal, or *Maxima Virgo*, was alone permitted to enter this holy of holies.

The functions of the Vestals lasted thirty years: the first ten years were passed in a sort of novitiate, during which the novice became acquainted with her duties; the next ten years were spent in performing these duties, and the remaining ten were spent in instructing others. At the end of this time the Vestals could re-enter the world, and even marry, if so disposed. Very few ever availed themselves of this right. They ended their lives near the goddess to whom they had vowed their chastity, and after death were interred in the Grove of Vesta. Traces of their sepulture were found in the sixteenth century on the site of the Church of Santa Maria Liberatrice. Twelve tombs of Vestal Virgins, with their inscriptions, were found here.

As a compensation for the sacrifice the Vestals imposed upon themselves by adhering to their vows after the required period of thirty years, they were treated with the greatest respect and enjoyed the greatest honors. Being released from parental restraint, *patria potestas*, and from the authority of their kindred, they could receive legacies and dispose of their possessions by will and testament. No oath was required of them in courts of justice when called upon to give evidence. If a magistrate met a Vestal, he had the fasces, the badge of his authority, lowered in salutation. Fortunate was the criminal, on being led to punishment, if, by accident, a Vestal crossed his path. His freedom was sure to follow upon the *accidental* meeting being verified.

But, if the greatest honors and privileges awaited those who lived up to their vows, the most horrible punishments awaited those who violated them. At the extremity of the Quirinal, between the Colline gate and the place where, later on, stood the famous garden of Sallust, was the *Campus Sceleratus*, or accursed field. Here was a subterranean chamber in which the guilty priestess was buried alive. Stretched out upon a bier, covered over with heavy drapery to stifle her cries, she was borne in mournful procession across the Forum, through the silent crowd, to the vault, in which was placed a bed, a lighted lamp, some bread, a little water, milk and oil—provisions for one day in that eternal prison—given, not in mercy for the poor victim, but the mocking help of a piety unwilling to acknowledge to Vesta the murder of one of her virgins. When the funeral train had reached the fatal vault, the high priest offered up silent prayers; then the bier was uncovered, and the victim, wrapped in her white vail, as in a shroud, descended by a ladder into her tomb, which was speedily covered up by slaves. The earth above was soon leveled, that no trace might be found of the place where, in the darkness of the tomb, the guilty Vestal had expiated her crime. Nor did her punishment end here. No libations, which even the poorest Romans offered to the Manes, were made here. She was cut off from the world of the living and of the dead. The spectators, after the carrying out of the dread sentence, slowly and silently disappeared, deeply moved at the terrible punishment visited upon a young and beautiful maiden, and grateful for the greater evils averted from their capital by this propitiatory sacrifice.

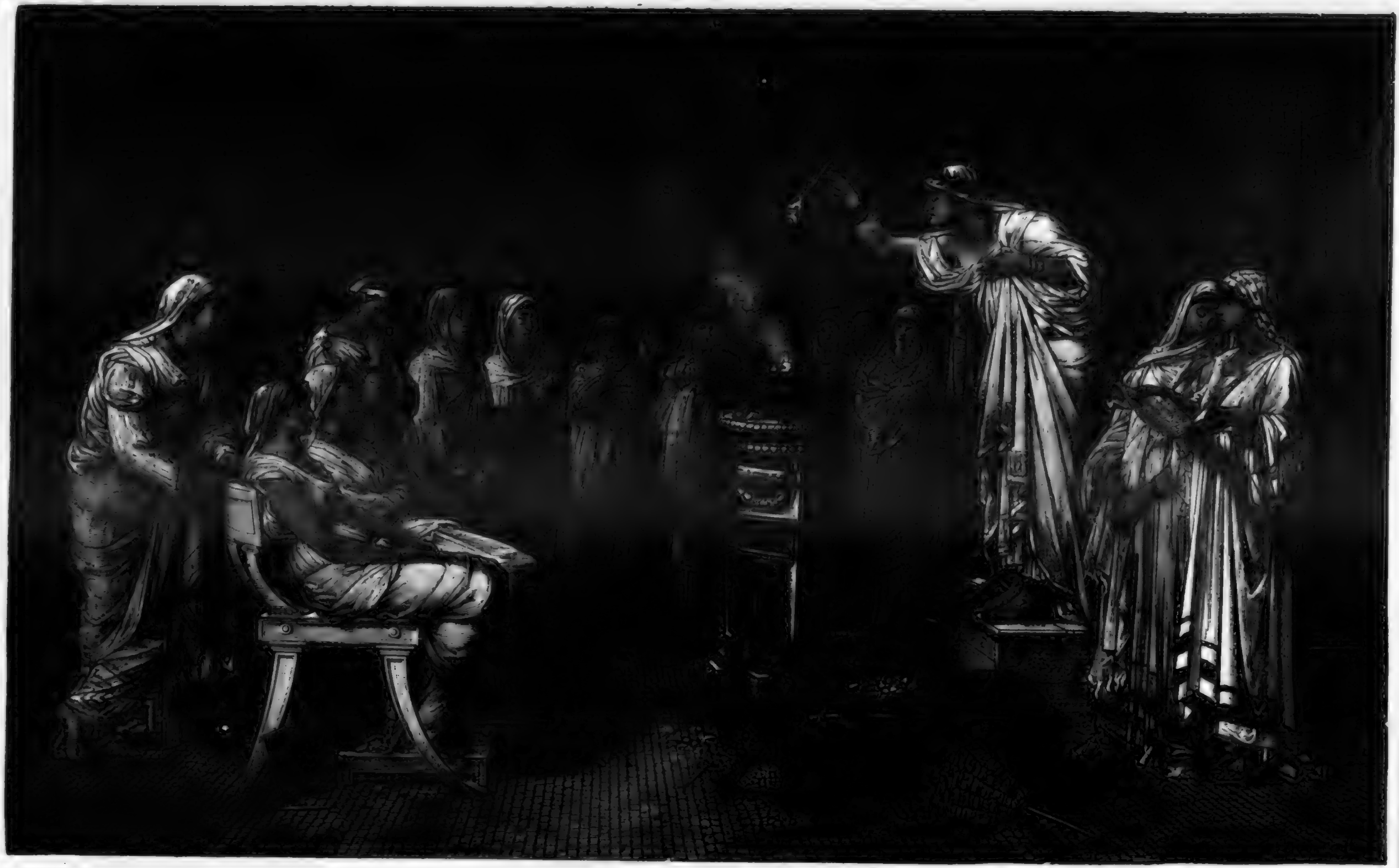
But Vesta was not always so cruel to her priestesses. One of them, Amelia, being about to be condemned to death for having intrusted the duty of keeping up the sacred fire to a novice who allowed it to go out, after having implored the intercession of the Goddess Vesta in her behalf, tore a strip from her robe and cast it on the cold cinders. The fire blazed up again, and Amelia was saved. Another equally fortunate Vestal was Tuccia, who was accused of incest. Conscious of her innocence, she appealed to her patroness for aid. "O Vesta," she exclaimed, "if I have ever approached thy altar with clean hands, grant me a sign to prove my innocence," and, seizing a sieve which was near by, she ran with it to the Tiber, filled it with water, brought it back and poured the water over the feet of the astonished pontiffs. The memory of this miracle has been preserved by an engraved medal. These legends, by attesting divine intervention, freed the Roman conscience from the remorse of having condemned innocent victims to a most frightful death, when their merciless policy demanded a victim to propitiate popular superstition.

The honors paid to the Vestal Virgins were measured by the religious importance of the worship which took place around this public altar, upon which the sacred fire was never to be extinguished. The influence exerted upon the manners of the Romans by the existence of the Vestals must have been beneficial, especially at the period of which we write. To the religious idea which first gave rise to the institution, and which determined the conditions imposed upon these maidens, was added a moral idea—none but virgins were permitted to keep alive the undying flame which symbolized the life of the Roman people—and this, though, perhaps, unintentional, was an exaltation of chastity.

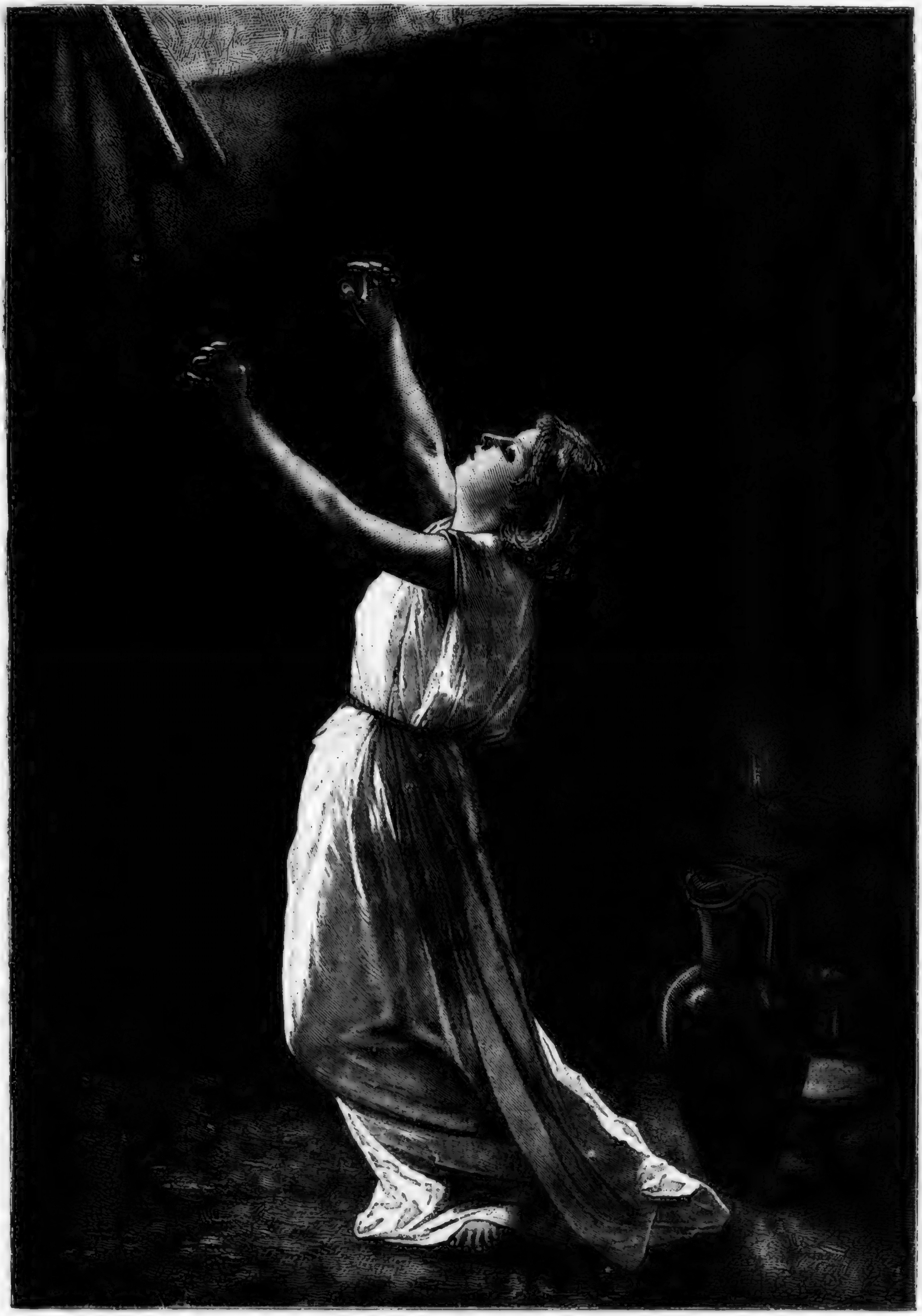
The public maintenance of the Vestal Virgins and the worship of Vesta were discontinued by Gratianus, A.D. 382. Symmachus made this a subject of the strongest protest against that Emperor and his colleague Valentianus, but the Vestals were doomed.

The Temple of Vesta is attributed to Numa Pompilius, and is supposed to have been constructed with wattled walls and a thatched roof. When Rome was captured by the Gauls, the Vestals took the sacred fire and other relics to Cære, in Etruria, for safety. The temple was, probably, then destroyed. It may be interesting to learn that the Temple of Vesta was burned in the year B.C. 241, on which occasion L. Metellus, then Chief Pontiff, saved the Palladium at the expense of his eyesight. In compensation for this devotion, he was allowed to be conveyed in a car to the Curia whenever he attended the Senate, a privilege which had been enjoyed by no other Roman. The temple was again burned in B.C. 210, and again during the great fire of Nero, when it was probably rebuilt by Vespasian, on some of whose coins it is represented. Profane fire seems to have pursued the sanctuary of sacred fire with unceasing energy, for the temple was again burned down in the fire which occurred during the reign of Commodus, and which destroyed, among other important buildings, the Temple of Peace, erected by Vespasian. Herodian describes the removal of the Palladium by the Vestal Virgins through the Via Sacra to the Imperial Court, on which occasion it was supposed that this image was first seen by mortal eyes since its arrival from Troy. As we look upon the ruins of this temple, the mind goes back over the lapse of ages, and most interesting, indeed, are the memories that seem to cling around those now almost shapeless ruins—the tradition of a primeval and mysterious worship, of idealized descent from Troy and Æneas, claimed for Rome and for the Cæsars. Tacitus tells us that Nero, when about to start on his journey for a theatrical progress through Greece, "offered up prayers for the success of his voyage in the Capitol, and thence proceeded to the Temple of Vesta. Being there seized with a sudden tremor in every joint, arising either from superstitious fear of the Goddess, or from a troubled conscience, which never ceased to goad and persecute him, he renounced his enterprise altogether."

XUM



THE SCHOOL OF THE VESTAL VIRGINS.—SEE PAGE 358.



THE DOOMED VESTAL.—SEE PAGE 358.

XUM

SIR PHILIP SIDNEY.

By Edmund Gosse.

Three hundred years ago, the hope of England was lying in the house of Mrs. Gruitthuissens in Arnhem. He had everything about him which he had once proposed to exchange for sleep—

"Sweet pillows, sweetest bed,
A chamber deaf to noise, and blind to light,
A rosy garland, and a weary head"—

and now sleep, also, had consented to come in long, refreshing intervals, which gladdened the loving, anxious hearts that thronged about him. The head, however, grew no less weary, and on the 1st of October, 1586, Sidney himself had become persuaded of what none of his physicians believed, and what couriers were dispatched over Europe to deny, that the end was certain to be fatal. The desperate retreat from the misty trenches of Zutphen had happened on the afternoon of the 22d of September. The famous refusal of the draught of water, the feverish volubility that alarmed Leicester when, after riding a mile and a half with his broken thigh, Sidney "ceased not to speak still of Her Majesty"—these were incidents of that same evening. Next day, from the discomforts of the camp, he was taken up the Yssel, from Deventer to Arnhem, in his uncle's barge, and brought into the house of a wealthy lady, where his best friends hurried to watch over him. After the prolonged pain and excitement, the greatest danger seemed at first to be for the brain; during four days he got no natural sleep. At last, on the 27th, he fell into a long, sound slumber, and when he waked he ate with appetite. The surgeons assured the Earl of Leicester that the worst was over, and that it was now only a question of slow recovery. There was but one person who was not of that opinion, and that was Sidney.

The whole affair of Zutphen had been foolhardy. Leicester held all the upper waters of the Yssel, but he was cut off from the Zuyder Zee by the Fortress of Zutphen. For nine days before the battle, the English had been investing this place, while Palma had been trying to relieve it. On the 22d, Sidney advanced eastward from the camp, not, as has been supposed, to attack the fortress—which, with such a minute force, he could scarcely dream of doing—but to watch the river for Palma's convoy of provisions.

A dull Dutch fog hung over the polders, and, when it suddenly lifted, the English troopers found themselves in the very midst of a body of the enemy five times as numerous as themselves. Sidney's little troop managed, after an hour and a half, to get back to camp, not without having very severely punished the enemy. But Sidney himself fell a victim to his own quixotism. He had started in full armor, as befitted the enterprise he had undertaken. But he met the Lord Marshal on the way, and, perceiving that he was without armor, Sidney took the steel plates off his own thighs to be no better armed. This vanity, or generosity, whichever we choose to call it, was his destruction. In the beginning of the fight his horse was killed under him; he himself contrived to escape unwounded, and, finding another horse, returned to the charge. Then it was that he received the wound in his unprotected thigh. A ball struck him in the slope of the leg, just three inches above the knee, splintered the bone, and then was lost inward and upward. The soldiers about him declared that they never knew a musket-shot, not in a vital place, do so much damage. It was probably from the first an extremely critical wound, but it was rendered ten times worse from the fact that the victim had to carry the shot rankling in his inflamed flesh for a mile and a half upon a plunging horse. Add to this that the best surgery of the day was clumsy and empirical, and we have no difficulty in perceiving that Sidney was a lost man.

Something must have told him the truth on the last day of September, for his gayety, with which he had sustained the sinking spirits of those who attended him, gave way to a great gravity. As he was brought to Arnhem, then, perhaps, half delirious, he had been overheard thanking God for giving him time for setting his spiritual house in order. These thoughts now returned to him, and he summoned the Rev. George Gifford, who seems to have been attending him as his chaplain, to prepare him for eternity. Gifford wrote down an account of the interview, but unfortunately it is in the hopelessly turbid style of the ordinary divine of that period, and gives us nothing but spiritual commonplaces. There is, perhaps, one touch of Nature in his report of Sidney's frequent complaint that "his mind was dull in prayer." When the clergyman had sufficiently roused the patient to "violent gestures" and "increased mortification" of spirit, Sidney made his will. Next day the Earl of Leicester wrote to Walsingham to inform the Queen that Sir Philip Sidney was making good progress toward recovery, and bulletins of the same hopeful nature were forwarded to various parts of Europe. Meanwhile, Sidney occupied the dreadful tedium of his condition by inditing a poem on his own accident. It is described to us as "La Cuisse Rompue," but it does not seem to be recorded in what language it was written. It was a strange conceit to compose such a work; stranger still to have it set to music and sung at his bedside. We may, perhaps, not regret that "The Broken Thigh" is a lost masterpiece of literature.

By this time all his friends who could contrive to leave their posts were with him. His wife had come from Flushing, his brother from Rammekins; Leicester, singularly moved, could not quit the house; and Hohenlo, in a maudlin fury of distress, was threatening the surgeons. Imperious messages from England announced that the patient's life must be saved. Meanwhile, on the 8th of October, a dreadful symptom revealed the worst to Sidney himself, and he wrote off the last and most pathetic of his charming letters. It was addressed to the famous physician at Cleves, Johann Wier, the author of the "De Dæmonum Præstigiis," an old man over seventy, at that time, perhaps, the greatest medical authority in Europe. Sidney's last chance was to have an opinion from Wier. He wrote:

> "My Wier, come, come! I am in danger of my life, and I long for you. Neither living, nor dead, shall I be ungrateful. I can no more, but with all my strength I pray you to make haste. Farewell! Thy Ph. Sidney."

But the old doctor did not reach him in time. At daybreak, on the 17th of October, Sidney called Gifford to his bedside. He had not slept that night, and he knew that he had not many hours to live. All day the bed was thronged by loving and despairing faces, and to each one he had some word to say which, as Fulk Greville puts it, in his exquisite way, "gave witness to the world that those sweet and large, even when dying, affections in him could no more be contracted with the narrowness of pain, grief, or sickness than any sparkle of our immortality can be buried in the shadow of death." His last words were spoken to his brother, Sir Robert Sidney: "Love my memory," he said; "cherish my friends; their faith to me may assure you they are honest." We need not prolong the narrative of a scene which, after three centuries, cannot be contemplated without emotion. At two o'clock in the afternoon, with his hands clasped on his breast in the attitude of prayer, he ceased to breathe, without a struggle. He had lived only thirty-one years and eleven months.

Perhaps no other Englishman was ever so famous at so early an age as Sidney was when he died. Byron, who naturally occurs to the memory, was certainly less widely interesting to the world at large in 1820. Among his own contemporaries, the most illustrious, Raleigh, was an obscure though rising courtier, and unheard of outside a private circle, in his thirty-second year. But the death of Sidney, though it certainly is rather difficult to see why, was an event of universal interest. For some reason or other he had attracted the notice and awakened the hopes of Reformed Europe. From Tunis to Cracow it was felt that if any one could stem the tide of the triumph of Philip II. it was this slim and maidenly young gentleman from Penshurst. When Sidney was only five and twenty, Antonio of Portugal thought it desirable to secure his sympathy in a letter such as a king usually writes only to a king. It was even whispered that Sidney might have been a monarch himself—that, when Henry III. fled to Paris, the crown of Poland was his for the asking. Among the familiar friends of this English youth were Rudolph II. and William of Orange; princes in politics like William of Hesse and John of Austria; princes in art like Veronese and Tintoretto. William of Orange, no everyday giver of unasked testimonials, thought, though it was a great mistake, that Elizabeth undervalued this treasure of her Court, and actually called her attention to the fact that in Philip Sidney "Her Majesty had one of the ripest and greatest councilors of state at that time in Europe." There is no doubt that Palma thought the loss of Axel and Doesburg richly paid for in the death of so dangerous and brilliant an enemy. The Governor of Flushing had proved himself no less a warrior than he was a diplomatist.

The accounts of the mode in which Sidney's death was received in England seem almost fabulous. Elizabeth, who did not need the eulogies of William the Silent to teach her what her men were worth, broke out into one of the rages which passed for sorrow in this leonine woman. She had tormented Sidney with her caprices; she had let loose the bolts of her temper upon him when, with signal courage, he had solemnly reproved her; she had even spited him in the person of his family, and driven him from her Court; but she knew his value. Whether she ever liked him as she personally liked Raleigh or Essex is more than doubtful; but she was exceedingly proud of him. She spoke of him, now he was dead, as "that inconsiderate fellow," and for weeks she was dangerous to approach. Meanwhile, by slow degrees, the precious body was brought to England, the States of Holland being flatly refused the privilege of keeping it. After a week, during which I suppose that it was embalmed, it left for Flushing; after another week, it was sent to London, and from the 5th of November, 1586, to the 16th of February, 1587, it lay unburied, in a sort of pomp, in a house in the Minories. The vessel that carried it was painted black, with sails and cordage of the same color. It was met in the Thames with military honors, as though it bore some great general or admiral killed in the wars.

All this solemn prolongation of the national grief was nicely calculated to heighten the sense of national loss. The legend of Sir Philip Sidney took fabulous proportions. James VI. summoned Minerva and Apollo, with all the Muses, to mourn one in whom all their arts had been divinely mingled. Camden cried out that Providence had only sent Sir Philip Sidney as a model of the virtues, and properly had snatched him back to heaven from an earth never worthy of him, and that now had seen him long enough to learn the lesson. Meanwhile, the slow period of public mourning, and the long-drawn funeral, gave the poets an unequaled opportunity. Oxford and Cambridge each produced a volume or garland of elegiac verse, and the sorrows of New College, Oxford, overflowed into a special "Peplus Sidnæi" of their own. At last, on the 16th of February, 1587, when enthusiasm and anguish were past all bounds, there followed the funeral in St. Paul's, of which a unique pamphlet has so astonishing an account. The youth dragging the "Semper eadem" in the dust to the soft playing of fifes; the page leading the dead poet's war-horse, with a broken lance that trailed upon the ground; the endless pomp and indescribable splendor of the pageant that followed; the Lord Mayor at the head of the City Guilds—all this gives but a faint notion of a ceremonial, the contemporary picture of which occupies thirty plates, designed to be fastened together in one long roll.

When the funeral was over, the tide of panegyric rose to the extraordinary height marked by the publication of "Astrophel." And now the student of this curious mass of literature begins to notice a strange circumstance. Except in the perfectly sane utterances of Fulk Greville, the adoration of Sidney, by 1588, passed altogether out of the category of the praises of a real man.

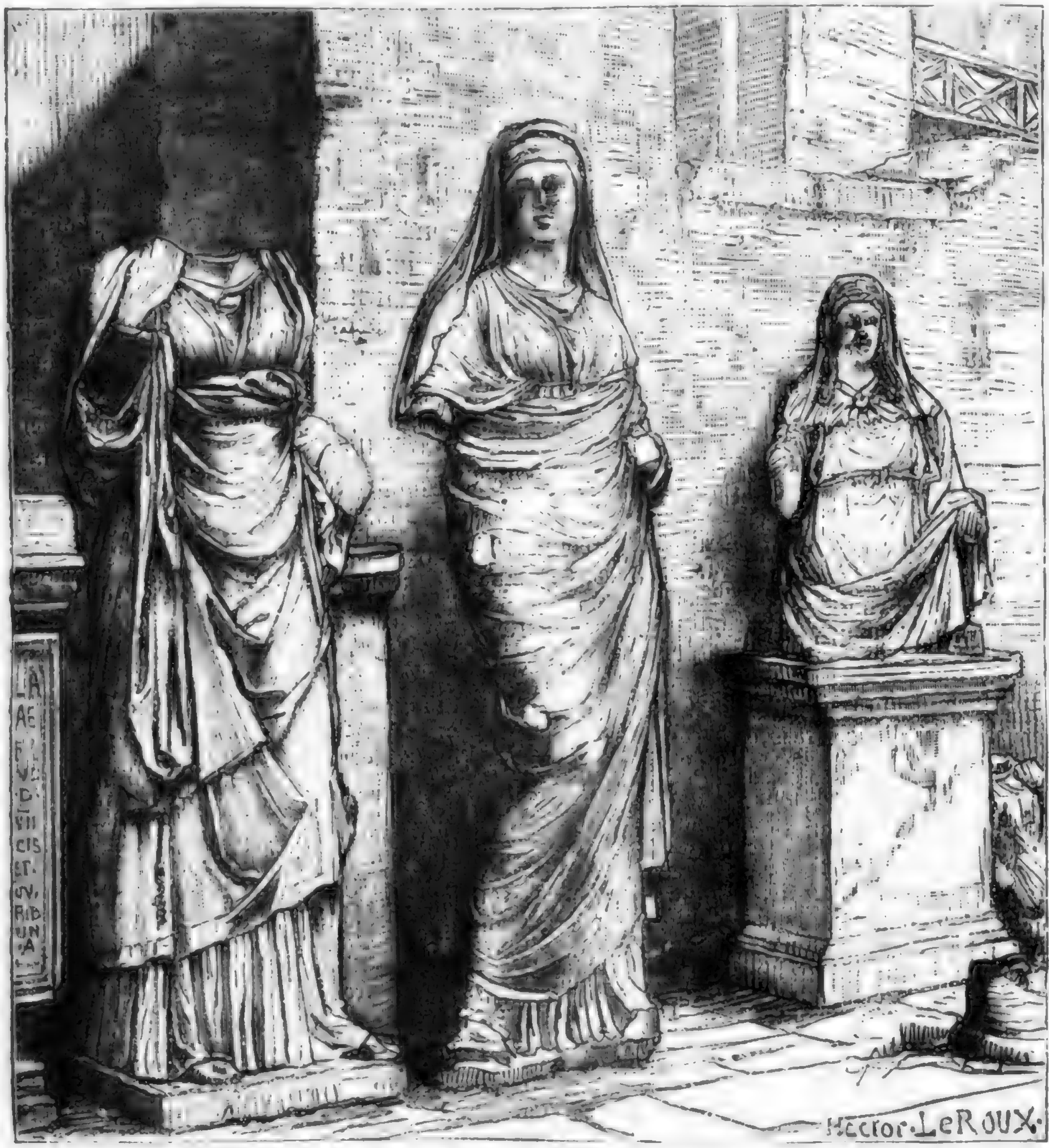
As an example of this singular craze or passion, let us examine what the greatest poet of the day, himself the friend of the man he celebrates, has to tell us about him. Spenser describes Sidney as a poor Arcadian shepherd, brought up on the banks of Hæmony. He is a slender swain of comely shape, who seems made for merriment (Sidney being notorious for want of humor), and who is famous among the shepherds at shearing-time for piping, dancing and sweet caroling. Many maidens wooed this swain, and so did wood-goddesses; but he fell in love with Stella, "the fair, the fairest star in sky," an astronomical deity, and scorned all these other nymphs. Wandering in a "forest wide and waste," driven thither by the desire of killing "savage beasts" in Stella's honor, a boar ran out of a thicket, and so gored him that he was like to bleed to death. But "a sort of shepherds" finding him, stanched his wounds and brought him to Stella, who had come down to earth for love of him. They fainted into one another's arms, and, as they lay there in the field, the gods transformed them "into one flower that is both red and blue." This herb is considered medicinal, and the poet recommends any one who meets with it to "pluck it softly." What could be more unreal, what could falsify history more, what could be more deplorably Byzantine in taste? It was left, however, for one Matthew Roydon to express the belief that Sidney was really the Arabian Phœnix in disguise, settled "on a cedar in this coast." Within two years Sir Philip Sidney had become a vague and splendid fable to the very men who had known and loved him.

XUM

It is, therefore, not inexcusable that, after about a century of worship, some reaction should have begun to express itself in relation to the mythical hero. Horace Walpole could not understand Sidney at all; the accounts which he found of his person and character struck him as revolting to common sense, and he expressed himself on the subject with scandalous flippancy. "No man," says Walpole, "seems to me so astonishing an object of temporary admiration"; and he goes on with dreadful justice to describe the "Arcadia" as "a tedious, lamentable, pedantic, pastoral romance, which the patience of a young virgin in love cannot wade through now." With one of those superficial flashes of judgment which served him like an instinct, Walpole saw that the figure of Sidney himself had been merged into that of his heroes. Walpole, having made this discovery, cared to go no further, but we cannot leave our poet thus among the griffins and heraldic monsters. We know that he was entirely unlike the portrait that his fanciful contemporaries left of him. Is it possible to strip off the fable, and see the actual Philip Sidney as he breathed and talked?

Much has been done in this direction by Mr. Fox Bourne in the pleasant "Life of Sidney," published in 1862. But there is something left to do, and we anticipate, with pleasure, a monograph promised from the pen of Mr. J. A. Symonds. In the meantime, I would essay a few words on the character and genius of this wonderful man. Our modern estimate of him, I suppose, is mainly summed up in Shelley's words:

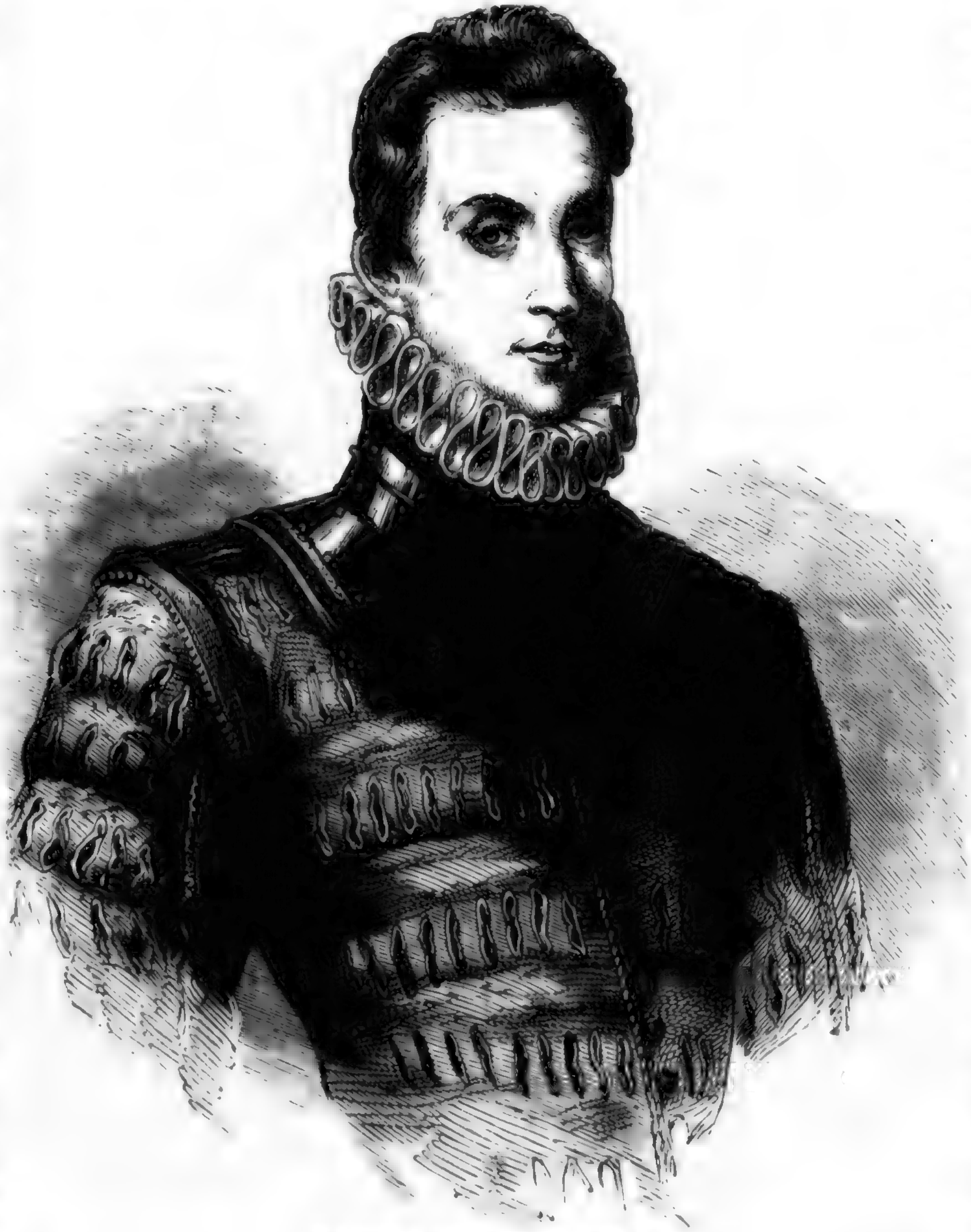
> "Sidney as he fought
> And as he fell, and as he lived and loved,
> Sublimely mild, a spirit without spot."



STATUES FOUND IN THE ATRIUM OF THE HOUSE OF THE VESTALS.—SEE PAGE 358.

This is very charming, but it borders not only upon the fabulous, but even upon the namby-pamby. I do not like "sublimely mild." Almost the first thing that dawns upon the student of Sidney's character is, that he had a quick temper. He was far from being sublimely mild when he wrote the letter in which he told Mr. Molineux that if he ever again read one of the private letters Sidney addressed to his father, "I will thrust my dagger into you; and trust to it, for I speak in earnest." He was even less mild, he was positively injudicious, when, in the Italian inn, he accused his friend

Coningsby of stealing money that was really in the pocket of mine host. The famous letter to Queen Elizabeth was sublime, but not at all mild, and we must drop this epithet, even in the peculiar sense in which Shelley may have used it, as equivalent to benignantly unperturbed. Sidney was prompt and rapid in mental movement; he formed opinions and translated them into action with great alacrity. In the very typical case of his quarrel with Lord Oxford we find him keeping his head when most men would have lost it from sheer rage; but it was all that the Queen and the Privy Council could do to prevent him from having the earl's blood. Unquestionably he looked mild; he had a girlish face of pink and white; and Oxford, no doubt, did not know his man when he dared to bully him. But there was wiry fibre in Sidney's mind and body, and we may be sure that, in those fighting days, no mere carpet-knight would have impressed himself on the popular mind as a hero.



SIR PHILIP SIDNEY.—SEE PAGE 362.

His extraordinary ability in all the diplomatic arts is quite beyond dispute. To be a diplomatist, a man must possess sympathy, and have a rare judgment in the use of it. The ideal diplomatist, like the ideal poet, is a man in whom the masculine and feminine qualities of the intellect balance one another with absolute harmony, each supplying the wants of the other side of the character. What is related of Sidney tends to prove that he possessed this equilibrium to a very extraordinary degree, and I take it to have been the secret of his charm and of his power. Spenser tells us how the vulgar Gosson, pushing his wares into the unwilling hands of Sidney, "was for his labor scorned"; but he instantly feels that the word is incongruous as applied to Sidney, and hastens to say, "if, at least, it lay in the goodness of that nature to scorn." In the same sense, we may note the perspicuous patience with which he held Greville at bay, and watched the countenance of Admiral Drake during the extremely trying circumstances of his visit to Plymouth in 1585. His manner of dealing with men is clear enough from a great many fragments of evidence. He gave his full attention, very gravely, to what any individual said to him; his sympathy, which, as we have seen, was very quick, enabled him to fathom easily what was in the mind of a nervous or embarrassed applicant, and no one seems to have ever left his presence without an enthusiastic personal feeling of regard. With a temperament of this exceptional kind, and with equally exceptional opportunities and facilities, such a man as Sidney has only to see enough people to become the most beloved of men; and the sole difficulty which we can legitimately find in the story of his popularity is to conceive how, in so few years, and without the leverage of wealth or rank, he contrived to influence so many individuals.

He possessed all the personal advantages that make a primrose path of life. His delicate beauty, almost feminine in character, was in itself a passport in an age which set an extravagant value on good looks, and preferred that they should not be too massive. But this maidenly aspect belied an exceedingly vigorous and very manly temper. Nor did Sidney ever allow himself to be browbeaten on account of the bloom of his complexion. When he was only two-and-twenty, Elizabeth sent him as ambassador to Don John of Austria, who received him with condescension, somewhat startled that the Queen of England should send such a boy to Philip II.'s generalissimo. But Sidney contrived to show him his mistake, and soon after we find Don John not knowing what tribute to pay to this "extraordinary planet," and proving his appreciation of Sidney by treating him with more honor and respect than any of the ambassadors of other states. It was the same everywhere. There is no doubt at all that he was marvelously fitted to fill the most precarious posts in the world of diplomacy. It does not seem that he took any interest in politics. His prognostics of events in his letters are as incorrect as they could possibly be. His strength lay in personal intercourse with men who held the reins of power. He knew how to please them and secure their confidence, and even when they were the enemies of England he did not seem able to help leaving them Sidney's friends. It was not like Elizabeth's usual cleverness to distract the possessor of this extraordinary gift to other fields. The man who had more tact than all the rest of her Court should have been restrained, against his own preference, from becoming a soldier.

Of late years people of a nice morality, not very familiar with manners in the reign of Elizabeth, have been very much scandalized with regard to Penelope Rich. A critic wished that "Astrophel and Stella" had never been written, as soon as he discovered that Stella was a married woman. But, obscure as the circumstances of this celebrated love affair are, we must judge them impartially, and by the standard of the times. To his contemporaries the sonnets written to Penelope Rich only increased their respect for Sidney's character. In the most grave and public estimates of his career, this passion is openly mentioned as one of the most interesting of its events. A severe moralist, in 1591, summed up the cycle of sonnets as a work of which "the argument is cruel chastity, the prologue hope, the epilogue despair." It is impossible to put the matter more neatly in a nutshell. Penelope Devereux was twelve and Sidney twenty when they first met, and there is something almost ridiculous in the poet's apology for his stupidity in not falling in love at first sight. "I saw and liked," he says; "I liked, but loved not." But the Earl of Essex had not only determined on a match, but I think a hint on this subject had been given to Languet, who begins in the Autumn of 1575 to urge marriage on Philip Sidney in almost the very terms which Shakespeare uses in his opening sonnets. But we find Sidney almost restive in reply; he has no thought of marriage, or even of betrothal; and Penelope probably did not cross his thoughts until, in September, 1576, her father, in dying, desired that she and Sidney should be matched. In December their betrothal is still only talked about. In March, 1580, nearly four years later, we begin to hear of Lord Robert Rich as a suitor to Penelope Devereux. Six months pass, and Sidney makes no sign; in September, 1580, she becomes Penelope Rich. At that time Sidney was at Wilton, composing the "Arcadia," and there is no evidence to show that he was in the least perturbed in spirit. Some writers say: "To Sidney the news of the marriage was terrible"; but they base this statement on expressions in poems, the dates of which are mere conjecture. Early in 1581 Sidney came up to London again as a Member of Parliament, and then, and not until then, apparently, he heard of Stella's miserable existence with her worthless husband. His first expression would be, perhaps, the scoffing sonnet, "Rich fools there be." He would then meet Penelope Rich, for the first time since many years, and would find the child of twelve developed into the very beautiful woman of eighteen. Then he would realize what it was that he had lost, and the "Astrophel and Stella" would be the record of a turbulent emotion, in which pique and disappointment would have no small part. This record would occupy, perhaps, the remainder of 1581. The incident was closed, I cannot doubt, before Sidney went to the Netherlands early in 1582. A few months later he was married to the wife with whom he lived quietly, and in whose arms he died. It is evident that several elements besides infatuated passion were mingled with the worship of Stella. If it be not unkind to say so, the desire of rivaling Petrarch in his praise of Laura, and still more Surrey in his praise of Geraldine, was a very considerable bellows to the flame. As a piece of history, there seems all reason to believe that the facts are summed up in this stanza from the eleventh song:

"*Stella.* Peace! I think that some give ear;
Come no more lest I get anger!
Astrophel. Bliss, I will my bliss forbear,
Fearing, Sweet, you to endanger;
But my soul shall harbor there."

If to say that it does not appear that *l'éternel féminin* took any great part in Sidney's busy life be a paradox, it is none the less in accordance with evidence. We are quaintly told that many noble ladies "ventured, so far as modesty would permit, to signify their affections unto him," but their advances were courteously declined. He married at twenty-eight, and was a husband, as one of his earliest biographers tells us, "exemplary to all gentlemen." It was, indeed, in the ranks of friendship much rather than in those of love that Sidney, despite his sonnets, seems to have been eminent. He had an extraordinary power of attracting, and, what is not always found in the same nature, of returning affection. As an example of the former, the correspondence of Hubert Languet remains to us. Languet, at the age of fifty-four, met Sidney, just eighteen, at Frankfort, and a friendship began which lasted until Languet died. His letters to Sidney are like none that I remember except those of Gray to Bonstetten; the relation between the men was somewhat analogous — the worn and weary student of life and books watching the young and brilliant creature which has swum into his ken, and guarding it with an almost motherly anxiety. Sidney, in his replies, is always respectful, affectionate, assiduous, but, as usual in such cases, the strong feeling is all with the older man. It was a more equal emotion which presided over his friendship with Fulk Greville and Edward Dyer. There is no such touching trinity in all the annals of comradeship. From childhood to the grave of Sidney, where the survivors bore the pall above his body, these three held together without a single flaw in their loyalty, through all the vicissitudes of life.

"Welcome my two to me,
The number best belovèd;
Within my heart you be
In friendship unremovèd.
Join heart and hand, so let it be;
Make but one mind in bodies three."

So he says, and, for fear there should be any doubt about the three, his autograph of the poem bears the initials in the margin, E. D., F. G., P. S. Over and over he repeats this declaration of fidelity; and the two who outlived him repaid him with their fullest loyalty.

Dyer and Greville were poets like himself, and almost the only reference to the famous Areopagus includes their names. He says:

"Well was I, while under shade
Oaten reeds me music made;
Striving with my mates in song,
Mixing truth our songs among,"

and presently the margin says, "Sir Ed. D. and Mr. F. G." The Areopagus finds its niche in every handbook of literature, but it is noticeable that we know extremely little about it.

The years 1578 and 1579 were quiet ones in Sidney's career, and they mark his first serious attention to literature. His masque of "The Lady of the May" belongs to May, 1578, and is even below what men like Gascoigne and Churchyard had been producing. The moment was a critical one in English poetry. The hour was darkest just before the dawn, and, though England was full of boys of genius, there was only one living poet of recognized position—namely, Sackville, who had long ceased to write. Everything seemed dead; Spenser, writing to Cambridge from London, could hear of no new books except "The School of Abuse." For some reason or another, all lovers of literature, all the young men who desired to excel and had not found a voice, looked to Sidney as the pioneer who should open a way into the kingdom of poetry. This is the secret of Sidney's extraordinary interest to the poetical student; he is the leader of the Elizabethan chorus, elected by popular acclaim to point the way for Spenser and Marlowe and Shakespeare. Very hard things have been said about the affectation of his earliest efforts, and the lovers of Sidney have tried, as we have seen, to evade the facts as regards his leadership of the Areopagus. But something may be said to justify action, the responsibility of which must remain on his head.

In the very midst of the Areopagus period there appeared "The Shepheard's Calendar," with its pretty, timid triplets of dedication to Sidney. All through 1580 Spenser, as much the greater poet as Sidney was the greater man, was breaking away from the bondage of his friend, while Sidney was still pursuing the vain attempt, as the asclepiads and anacreontics of the "Arcadia" are enough to prove. But, indeed, that famous pastoral is, in a certain sense, one of the most interesting books that ever were published; in the eyes of the literary historian it is a belvedere from which he looks up and down the whole range of English literature. It is the great transitional or probationary book, in which the old is passing away and the new is coming in. In verse it contains specimens of all the styles then fashionable, or defunct, or about to come into vogue. There are the quantitative failures of the Areopagus; there are long swinging pieces in the Golding or Turberville manner; there are sextains and sonnets in the new Italian fashion; there are rhyming dialogues, octosyllabics in the form that Green and his friends were to adopt, all meeting in the verse-divisions of the "Arcadia." The prose bears the same transitional character, except that it leans more to one model, and is less original.

If the "Astrophel and Stella" belongs entirely to 1581, as has been generally admited until lately, it marks a further advance in Sidney's power. Very little of the verse in the "Arcadia" is even tolerable; the latest and the most indulgent of the critics of Sidney's poetry admits that here he is "undeniably dry and artificial." There is in this fact an important element of internal evidence to rebut the notion that much of "Astrophel and Stella" belongs to a period earlier than Lady Penelope Rich's marriage.

If it had been so, there would have been a sensible incongruity between the style of the various sonnets, as there is between that of the earlier and later sections of the verse in the "Arcadia." But no such incongruity can be discovered. The sonnets of the "Astrophel and Stella" differ very singularly in merit, but they are written in the same mode. Mrs. Ward has claimed that the cycle is second as a series of sonnets only to Shakespeare's. She speaks, of course, of Elizabethan competitors only; but it is no very great praise to say that the "Astrophel and Stella" is better than "Delia" or "Idea" or "Fidessa." The Elizabethans loved to compose cycles of sonnets, repertories of affected and often very careless work, in which only one or two pieces possess lasting merit. Sidney did better than this; of his one hundred and ten there are, perhaps, fifteen that are very good. Charles Lamb admitted twelve into his selection of the best; Mrs. Ward quotes twenty-three, but amongst her favorites there are several which evidently owe their admission only to a happy phrase or a touch of natural feeling. By far the best are the two most famous—the one to the Moon, and the other to Sleep. It is strange that Lamb did not happen to light on the following sonnet, one which admirably exemplifies the qualities he claims for Sidney's poetry, the swift and gallant run of the verses, the full, material and circumstantial color:

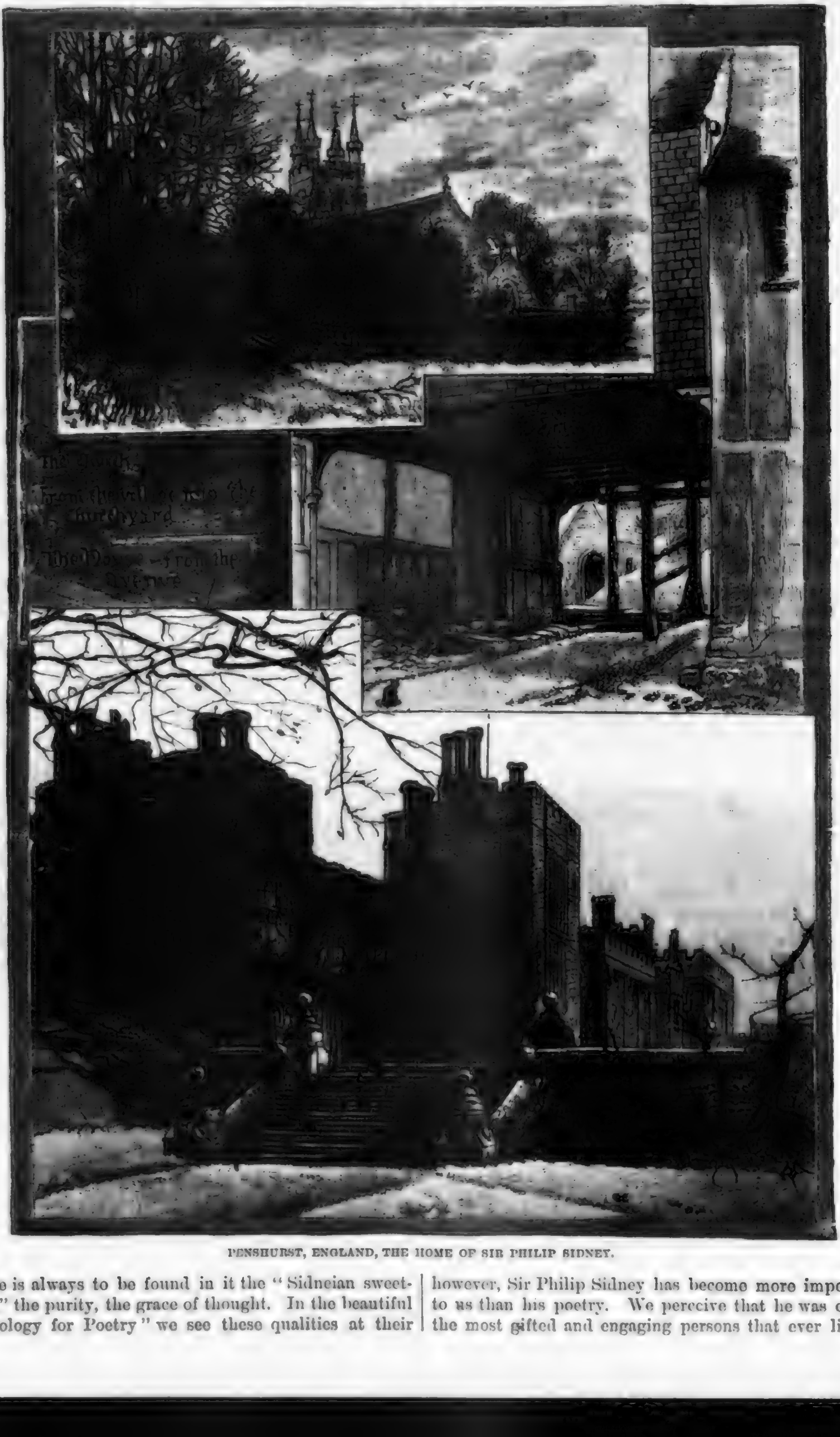
"I might! unhappy word—O me, I might,
And then would not, or could not, see my bliss;
Till now, wrapped in a most infernal night,
I find how heavenly day, wretch! I did miss.
Heart, rend thyself, thou dost thyself but right;
No lovely Paris made thy Helen his;
No force, no fraud, robb'd thee of thy delight,
Nor fortune of thy fortune author is;
But to myself myself did give the blow,
While too much wit, forsooth, so troubled me,
That I respects for both our sakes must show;
And yet could not, by rising morn, foresee
  How fair a day was near; O punished eyes,
  That I had been more foolish or more wise."

This is astonishingly like Shakespeare, and it was written when Shakespeare was a lad of seventeen.

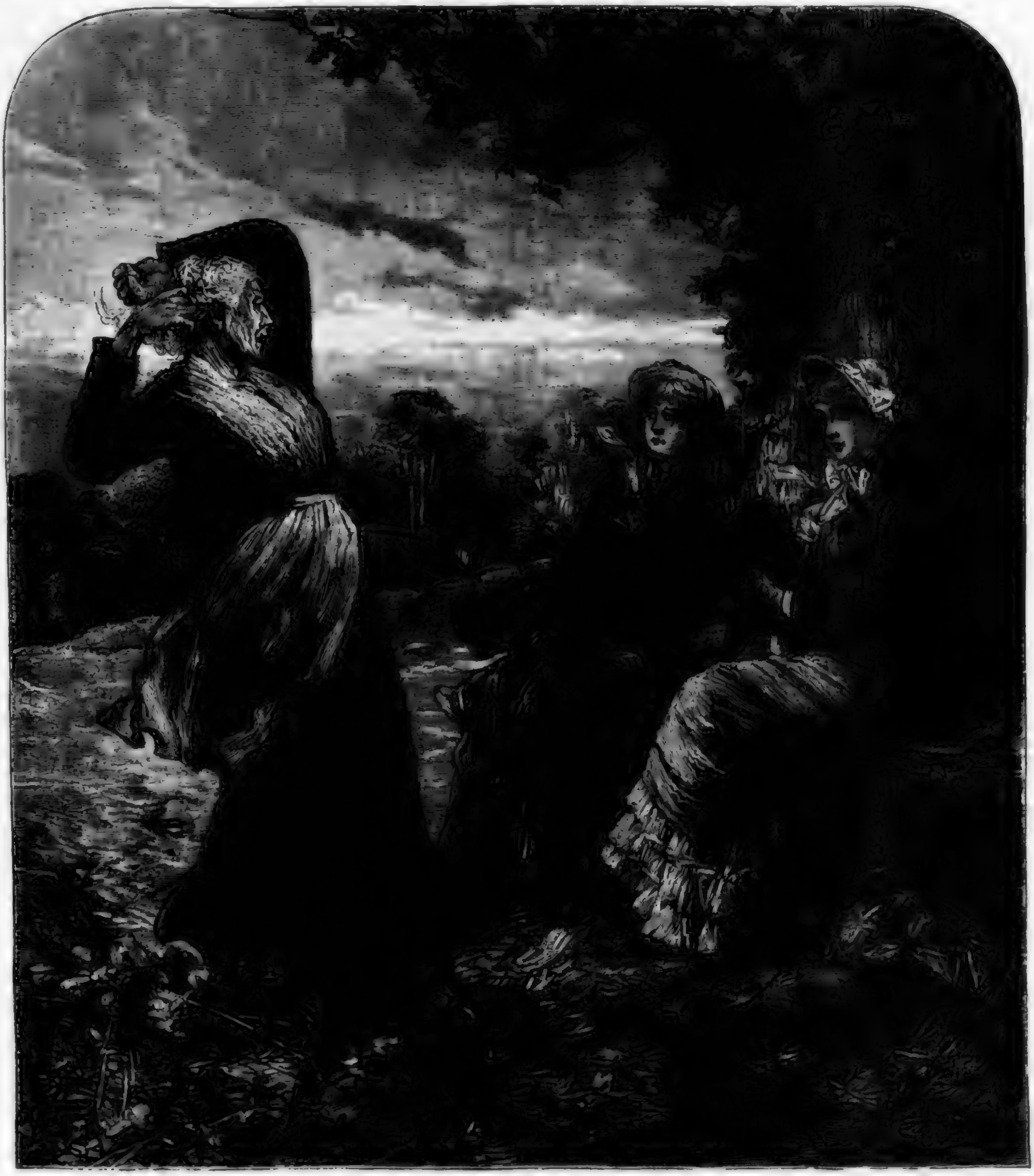
Still better than any but the very best passages in the "Astrophel and Stella" are the occasional verses first printed in 1598 as an appendix to the "Arcadia." These are, doubtless, mainly later than the Stella cycle; and here we have Sidney at his highest as a poet. They contain the lovely ode "Philomela"; and "The Dirge," Sidney's finest lyric, isolated from the rest of his verse as strangely as Raleigh's "Pilgrimage" is from the rest of his. In the same category I would place the two pastorals addressed to Dyer and Greville.

It is difficult, however, to date any of Sidney's poems later than 1582, and during the last four years of his short life he seems to have been silent. He died, as a poet, at twenty-eight, younger than Shelley or Collins. He was eminently an "inheritor of unfulfilled renown," and yet it is very hard to tell whether he would ever have come back to literature from diplomacy and swordcraft. His poetry was but an accident of his leisure. So universally gifted a man, in that age, was bound to write verses, and, being Sidney, we may say, was bound to write them well. But we have only to compare his work with that of Spenser to see the difference between the most brilliant amateur and the artist who made verse the sole business of his life.

To us, perhaps, in summing up, Sidney is most interesting as a radiating centre of sympathy, intelligence, brightness. He was singularly modern, a little ahead of every one else about him, full of ideas and wishes, which he strewed around to fructify when he himself was dead. As a great author, surely, we must never venture to regard him. The positive merit of the bulk of his writings is almost pathetically inadequate to any excess of praise. Even Lamb, perhaps, in his generous indulgence, says a little too much. Yet it would be an error to overlook the original flavor or perfume which gives a charm to his work, even where it is a little thin and uninteresting. There is always to be found in it the "Sidneian sweetness," the purity, the grace of thought. In the beautiful "Apology for Poetry" we see these qualities at their best, clarified from their author's occasional affectation and triviality; and this essay seems to hold a middle position between his verse and prose. After 300 years, however, Sir Philip Sidney has become more important to us than his poetry. We perceive that he was one of the most gifted and engaging persons that ever lived.


The Church, from the village into the churchyard
The House — from the avenue

PENSHURST, ENGLAND, THE HOME OF SIR PHILIP SIDNEY.



A YOUNG WIFE'S TRIALS.—"ANN ROSE UP LIKE A FURY, HER GREEN-BLUE EYES GLEAMING WITH ALL HER HEART'S HOT HATRED OF THE YOUNG WIFE."

A YOUNG WIFE'S TRIALS.

By Grace Mortimer.

Elfleda Leroy was a beauty and a fortune, and when she chose me, Miriam Summerson, out of Madame Varcoe's crowded seminary, to be her friend, my heart clave to her with a true love, passing far beyond the usual ephemeral love of the schoolgirl in its depth and endurance. She deserved a loyal love, for her nature was true and tender, and she made my solitary existence exceedingly pleasant to me all the while she staid with us; so that when, in her seventeenth year, she was wooed and married and carried off by Philip Ashburnam, I nearly broke my heart.

Owing to early bereavements I was alone in the world, left unprovided for, and obliged to earn my own support; mine was one of the obscure lives, sad-colored in its texture, and dependent upon outside influences for any thread of brightness which might in mercy be woven through it.

This pretty creature was my thread of gold. Rich, fair, petted and indulged by all around her—even to our sovereign head, Madame Varcoe herself—she had turned from them all to me, and in all the years of my solitary life she was the only being who had ever offered me the precious boon of human friendship. I sorrowed in silence for my darling girl. I supposed that marriage had closed for ever this brief episode of my happiness.

My delight was proportionate when, three months after her wedding, I received a letter from Mrs. Ashburnam, announcing that she and her husband had returned from their wedding trip, and inviting me to join her at their Summer home in a neighboring State.

"Philip is called to Canada on business which will detain him a fortnight or more"—wrote Elfleda—"and I shall be indeed to be pitied if Madame Varcoe will not spare her aid-de-camp to me. I have written to her, describing in moving terms the situation in which Phil's absence plunges me—alone in a country house, without a soul to speak to, save and except my husband's old housekeeper; a person of surpassing fidelity, he avers—ugliness, I say. I'm afraid she is not well pleased with him for bringing home a young mistress to set over her, after enjoying sole rule in his bachelor abode for six or seven years; at all events, she follows me with a Gorgon gaze wherever I go, and is mighty reserved and civil. However, if she has been faithful to dear Phil, I shall not allow her outward appearance to estrange me from her, and, with goodwill on my side, I am sure we shall be the best friends in the world. Only come to me, my own good Miriam, and I shall not care which way the wind blows in Phil's absence. When he is with me I am brave enough for anything."

I laid down this letter with a feeling of uneasiness. Was there to be war between the old maid and the young mistress? Too often it happened so, when an ignorant woman had ruled too long without supervision. I should have almost have suspected this old housekeeper of Elfleda's of having wronged her master, and of fearing detection by her mistress, if I had not heard Mr. Ashburnam describe many a time the fidelity of his factotum, whom he flatteringly termed "Faithful Ann."

Madame Varcoe was pleased to spare her under-teacher to the distinguished Mrs. Ashburnam for a brief holiday, and in twenty-four hours I was approaching the end of my journey, with mingled feelings of gladness and anxiety.

She was married now, my pretty Elfleda, yet I could not all at once forget the habits of a loving intimacy, and cease to care for, and suffer anxiety for, her sake.

Mr. Ashburnam's Summer residence was a cottage *ornée*, surrounded by a neat little domain, and situated a few miles from the city in which his business lay.

There was an air of deep seclusion about the place which would have suited my reserved temper well, but which might, I thought, prove depressing to the vivacious spirit of my friend.

However, if the avenue trees were deep-foliaged and solemn, in the vicinity of the house, flowers, fountains and the brilliant plumage of ornamental birds lent grace and gayety to the scene; and when I saw my dear on the veranda, waiting me with eager impatience, I felt that there was nothing more to be desired.

"Oh, Miriam, how welcome you are!" she cried. "I can't tell you how I have longed for you!"

She received me in her arms. There was a certain strain in their clasp, and the tears started to her eyes.

I could not help examining her closely. I longed to be sure of her happiness, of her safety in her new existence. But she turned from my earnest look uneasily; for the first time in our acquaintanceship, poor Miriam's glance confused her. She took refuge in the vivacity of her welcome, and I laid by my troubled thoughts and followed her into her pretty home.

Upon the threshold I encountered a singular-looking woman, who was courtesying a prim welcome, and whom I instantly recognized as "Faithful Ann."

She was past middle age, and she was no beauty. Her features were harsh; her faded eyes seemed frozen in their deep and wrinkled sockets. Her complexion was brick-red, and sewn with yellow freckles. Her hair was dust-colored, and a score or two of red bristles adorned her chin.

Nor did her facial expression teach forgetfulness of her ugliness, for it was fawning and treacherous—at least, it seemed so to me, although I felt ashamed of myself for the hard judgment even while I made it.

Mrs. Ashburnam formally presented the valuable creature to me, adding to her, with a singular air:

"You have been bemoaning my sad condition since your master left us, so you see I have induced my friend—the best friend in the world—to take pity upon me. We shall soon be all right now, Ann; I am sure of that."

I thought there was defiance in the young mistress's tone, and that the housekeeper looked quite taken aback at my appearance; but, whatever she felt, she was quick enough to postpone its expression, while she remarked, with rather a crooked smile:

"The dear knows, it's time ye had somebody to take care of ye, for I'm no comp'ny for ye, an' well I know my place; though the time was—an' not so long ago, neither—when I was thought good enough to take care of iverything he had. An' it's himself has said to me many's the time, 'Ann,' says he, 'I wad trust ye with untold gold,' says he. But I'm only a poor servant-gurl now, an' I knows my place."

"I have heard of you from Mr. Ashburnam," I said, hastily, bringing the interminable oration to an end. "He reposed great confidence in you."

But as I said this, I could not but fear that his confidence had been misplaced; for if ever envy, hate and all uncharitableness were expressed in human visage or tone, they were in "Faithful Ann's."

Elfleda carried me off before the woman could resume her discourse, and only breathed freely when we were shut together into the charming little chamber which she called mine. I waited for her to burst out with all that was in her heart, as she ever had used to do when we were alone; but I waited in vain—she was very busy over me.

Her hospitable duties quite engrossed her, until there was nothing possible to be done for my comfort that was not done; and then she sat beside me, and put me through a gay catechism about the seminary and its inmates, with a host of similar subjects.

I was at first amused by her radiant satisfaction, then I began to covet a nearer approach to her inmost self.

"And now, Elfie, tell me true," said I, playfully, "are you happy?"

A change instantly passed over her animated face. It fell—fell.

"Why do you ask me that, Miriam? Do I not look quite well and happy?" she returned, fixing a penetrating look upon me.

"Indeed you do," I could with truth reply. "But yet I must say that I detect a change in you, not a physical change, but pertaining to—what shall I call it?—the spirit."

I stopped with a start. Her eyes had dilated and her cheek had paled. What could I have said to affect her so?

"My darling girl," I cried, "there *is* something wrong here. I suspected it from the first, and now I feel sure of it. Won't you tell me your trouble, Elfie?"

She rose to hide her face from me, and as she walked up and down the length of the room once or twice, I saw her step falter and her hands wrung hard together.

Alas! the common lot of mortals had fallen to my bright Elfleda; she had her sorrow, bitter and hard, to bear.

When she was sure she could trust herself to speak, she came back to me with a forced smile, and said:

"I was afraid you would find that out, Miriam, and make yourself wretched about me; and not even *you* can help me, though I know well that you would be willing to lay your dear heart under my feet to do so. *No one* can help me—*no one*." Ah, what anguish curled beneath her soft tones as she spoke these words! "And, after all, it is such a little thing," she went on, choking back her emotion. "Such a very trifle to wreck one's whole life—— But what nonsense I am talking! All will come right again, I am quite sure."

She uttered the reassurance for my benefit—I saw that, and that she had not the slightest hope of it all coming right.

Amazed and terrified, I pleaded with her to confide in me. She shrank from the very thought with a reluctance which hurt me cruelly.

"You *used* to tell me everything," I could not help bewailing.

She threw herself upon me in a passion of love and grief.

"Is it Ann McEvoy who is the disturber of your peace?" I whispered.

She shuddered, but would not otherwise answer. I thought I had put my finger on the sore. "Faithful Ann" had already contrived to make the young pair quarrel about her. Finding that the old housekeeper was not going to relinquish the reins without ill-feeling, Elfleda had probably begged her young husband to dismiss a person so inimical to their married happiness, and Mr. Ashburnam had, with a man's peculiar blindness in such matters, refused to cast out the model of fidelity. A lover's quarrel, thought I, with an inward smile at my poor darling's despair; and I soothed her back to cheerfulness with a light heart.

But I did not love "Faithful Ann" the better for my suspicions.

I learned that Mr. Ashburnam had been gone three days; consequently, Elfleda had been left to the tender mercies of the faithful one quite long enough to have a taste of her quality, undiluted by his protecting presence; and that the young mistress seemed to fear and dislike her, spoke ill for Ann McEvoy's loyalty.

I resolved to keep an attentive watch over "Faithful Ann," and felt sure that sooner or later I should detect her in some act of iniquity which would secure her dismissal from her too credulous master upon his return home; and in the meanwhile I felt as bold as a lion to protect my sweet girl from every annoyance which had its origin in Ann.

Cheered by these thoughts, I passed a delightful evening in the society of my friend; and as she had resolutely cast off every trace of preoccupation, I believed her to have forgotten her trouble in my love.

Next morning was as lovely as sunshine and Summer breeze could make it, and when we met at breakfast, Elfleda looked quite her old sprightly, care-free self. As her bright laugh rippled out, and her eyes shone with merriment, I caught Ann shaking her head with a dismal air, and croaking as if to herself:

"Poor thing! poor thing! Heigh-ho!"

At which my pet's bright face fell, and I could have wrung that old witch's neck for her.

By-and-by I proposed a walk about the grounds, which looked very inviting from the window.

Elfleda threw an involuntary glance toward her grim handmaiden, whose little green eyes were already fastened upon her. In vain I strove to read that glance, interchanged by eyes innocent as an angel's and eyes malevolent as a satyr's. I thought the woman changed color, that her jaw fell; I know my darling threw up her head with a haughty motion, very foreign to her nature, and answered me calmly:

"By all means. Small as our grounds are, we have quite a maze of wood-paths; and, best of all, a pretty view from the summit of a hill which will not tire you to ascend."

"Gracious!" cried Ann, in trepidation; "you'll never be takin' the miss up that steep in the face of such a sun? 'Deed, an' if ye do that, Mis' Ashburnam, you'll be a rash woman, this day."

Her young mistress looked her indignation.

"Do you interfere with my liberty of action?" said she, haughtily.

"Far be it from me, a poor Highland gurl, to interfere with a fine leddy like you," said Ann, with overdone humility. "But if I might mek so bold as to *advise* ye, I wad say, by no means to tek the young miss up yonder, for it's a bitter climb in the hot sun, an' you're not overly strong. But there, I ll say no more, for I know my place."

"Be kind enough to keep it, then. Your anxiety on my account is irksome," was her mistress's chafed reply.

"Faithful Ann" moved a little behind me, and from that shelter telegraphed a look to Mrs. Ashburnam which drew the blood hotly to her cheeks.

"Enough!—enough!" she cried, imperiously. "I shall not be imprudent."

With a distinct desire to annihilate the intolerable paragon of fidelity, I wheeled round in my chair, and caught her with her arms folded, nodding her head, with lips pursed up—the personification of grim fate.

"Dear me!" I exclaimed, in affected amazement, jumping up as if terrified, "what an extraordinary person! Is—is she quite *sane?*"

To do myself justice I will explain that I whispered the last words; but before my friend could reply, Ann pounced upon me in virtuous wrath.

"'Deed, miss, an' I am as sane as yourself, an' far saner than some of ye little think; an' I will say, it's come to a fine time o' day when me, that's been mistress here for six long years, is to tek the like o' that off——"

"Ten thousand pardons, excellent Ann!" I hastened to interpose, before her distressed mistress could join in the fray. "You must make allowance for my ignorance, and keep in mind that I am not accustomed to the ways of old and privileged servants with their mistresses."

With this I got out of the room, dragging Elfleda with me, and leaving my enemy glaring after me, doubtful how to take my apology.

I expected Elfleda to break down and relieve her pent-up anger when we were alone, but all she said was:

"What must you think of us! Oh, Miriam, I am almost sorry that I made you come!"

We were walking down the pleasant avenue, well out of the Gorgon's hearing, when I relieved my pent-up spirit.

"Do you know what I would do with that paragon of

AURORA.

yours, if I had the misfortune to possess her?" I asked, quickly.

"What would you do?"

"I should pack her trunks this very morning, portion her respectably, and dispatch her per express to Mount Arlington Insane Asylum as a life inmate," I replied, with malignant gusto.

What ailed my darling?

It seemed as if my idle speech had given her a cruel stab; she looked at me with a stricken look, and a moan of keen suffering escaped her.

"My darling Elfie!" I cried, unutterably shocked; "do you know that you are torturing me with this secret trouble of yours. I can see that it is no girlish trifle—it is something very cruel." Yes, her wan look assured me that it was very, very cruel. "Then why not tell me all about it? Are you not dear to me as my life? and can I see you in anguish and distress without suffering greatly myself? Ah, my dear, you should confide in Miriam!"

She twined her arms about me, whispering with her cheek to mine:

"Miriam knows that I love her with all my heart. Oh, yes; more dearly now than ever."

"Then let me share your trouble."

She shook her head, tears gushing from her eyes.

"Why, darling—why?" persisted I.

"By-and-by," she faltered. "Perhaps it will pass. Let me wait a little longer."

"Elfie, I would give much to share your trouble," I said, with great emotion; "but I shall never force your confidence. Only keep this in your mind, dear, that whenever your burden becomes greater than you can bear, I am ready to share it with you."

"Oh, that you could! But no one can!" she exclaimed, with a gesture of despair.

I urged her no more; the sin of the solitary was mine. I was too proud to obtrude myself even upon my only friend. I allowed her to change the subject once more, and tried to find comfort as before in the thought, "It is a passing quarrel with her husband;" but already that theory was shaken, and darker suspicions beset me.

The premises were very prettily laid out in a landscape garden—they occupied about eleven acres, two-thirds being covered with wood. As Elfleda had said, a perfect labyrinth of footpaths wound through the miniature forest. There was a fish-pond, and a rivulet with a rustic bridge: many rustic seats scattered about for the comfort of wanderers, and in the centre of the wood an eminence of some considerable height, crowned with a single giant oak, a picture in itself.

I was struck by Elfleda's wan look toward this noble forest king when first we came in sight of it.

"Don't let us go up there if you have any unpleasant feelings connected with the place," I ventured to say.

"On the contrary, I am eager to take you there," she answered, repressing agitation. "It is always breezy upon that bare summit, and the view will delight you. Yes, yes; I have dreamed of having you beside me up there, Miriam—I have looked forward to it."

And "Faithful Ann" particularly protested against my going there, I remembered. I was puzzled anew.

As we made the ascent side by side, I could not help looking for some sign of the weakness which Ann had ascribed to her mistress as an excuse for her interference; but her step was as elastic, her motion as powerful, as it used to be in the schoolgirl days, when she and I scrambled over the rocks on the beach below the seminary, glad to get away from the prim regulation promenade of the rest of the class. But in those days I never observed the excitement, the repressed eagerness and anxiety, in my bright girl companion, as now broke through her utmost endeavor to seem at ease.

The steepness of the acclivity tried me, but she was fresh as ever, and bounded on before me toward the oak, the broad shadow of which swallowed her up from my sight for a few moments, until I also arrived, panting and laughing.

She seemed to have regained some ease of mind, and gave me a mock-effusive welcome to her favorite bower.

"I sit here half of my time when the weather is fine," said she; "and I hope you will like to come as much as I do."

A broad seat encircled the gigantic trunk of the tree, and the far-reaching foliage spread over us like a green firmament.

Some hoary branches grew low enough to be within reach by standing on the seat, and these, I was amused to observe, had been so trimmed off as to form a very passable ladder to a luxurious seat in a cleft twenty feet up the trunk.

This was Philip's own pet reading-chair, Elfleda explained, ever since he was a boy. I should only see him run up and down his ladder!

"We had such merry times at first up here," she said, in a low voice, a look of quiet despair in her lovely eyes. "How I used to laugh at him, perched away up in the heart of the tree, almost hidden among the leaves, reading aloud in the most affecting manner to me, seated down here!"

The view from the hill-top was like a bird's view of half a county.

The toy forest girded the foot of the hill, and beyond, on every side, spread land and water, picturesquely mingled; on the one hand melting into the soft purple masses of distant mountains, on the other bounded by the blue sea-line.

The oppressive heat was tempered by a sweeping breeze, and the rustle of the countless glossy leaves overhead soothed the senses with thoughts of murmuring sea-waves.

It was, indeed, a charming Summer seat, and one ought to have been happy there.

All this was inexpressibly delightful to me. I could have forgotten my own peculiar sorrows, and reveled in the feast of beauty so bounteously spread before me, but I could not cut free from my darling's trouble.

There she sat at my side, silent, preoccupied, her eyes fixed and dilated, her ears set to catch the faintest sound; starting at every bird's whistle or squirrel's chirp; her nervous tension so great that when, with a sudden pang of unutterable yearning, I laid my hand on hers, she bounded as if touched by fire, and sank back again, quivering and hysterically trying to laugh.

What—*what* ailed my darling?

"It's no use disguising it, I'm quite unstrung," said she, unsteadily. "Don't mind me, dear Miriam. Just be kind and sit beside me."

My sigh was from the very bottom of my heart.

"You may help me—perhaps this very day," said Elfleda, earnestly. "I assure you that, if you knew all that has happened, you would do just that—sit beside me and wait."

Wait for what?

She was listening *for what?* She dreaded *what?*

Gradually this mystery took possession of me. A weird terror crept upon me. I began to hold my breath, to strain my ears, to gaze with blank, dilating eyes, to listen as she listened—but for what?

We had not sat there an hour when the spell was broken, and in the most prosaic manner.

Up the hill-path toiled the stumpy figure of "Faithful Ann." Puffing and blowing, with one hand to her side, and her gruesome face red as fire, she confronted us.

Most suspicious was the glance she darted from one to the other; but something in our quiet looks seemed to reassure her, and she became her own garrulous self.

"'Deed an' indeed, Mis' Ashburnam, I little thought it's *here* ye wad hef brought your comp'ny, you that's so——"

"What is your errand, Ann?" demanded her mistress.

Without another word, but with a venomous smirk, the faithful woman plunged her hand into her pocket and produced a letter.

"From Philip?—oh, thanks! thanks!" exclaimed the poor young wife, her face instantly transfigured with lovely joy.

"I thocht ye wad be fain to get it, an' so I made bold to bring it myself," Ann explained, laboriously; but if ever envy and hatred looked from human eyes, they looked upon Elfleda Ashburnam then.

Nobody pressed her to remain, and presently, with a queer look around, and up into the heart of oak, the housekeeper withdrew to her more legitimate duties.

Elfleda was absorbed in her letter, a long, four-page, closely written one—a true love-letter, that brought the light to her eyes, the shy, loving smiles to her mouth.

I had learned one fact—namely, that Elfleda's trouble was not a quarrel with her husband. All was well between them. He knew nothing of her distress.

Alas! what, then, ailed my darling?

* * * * * *

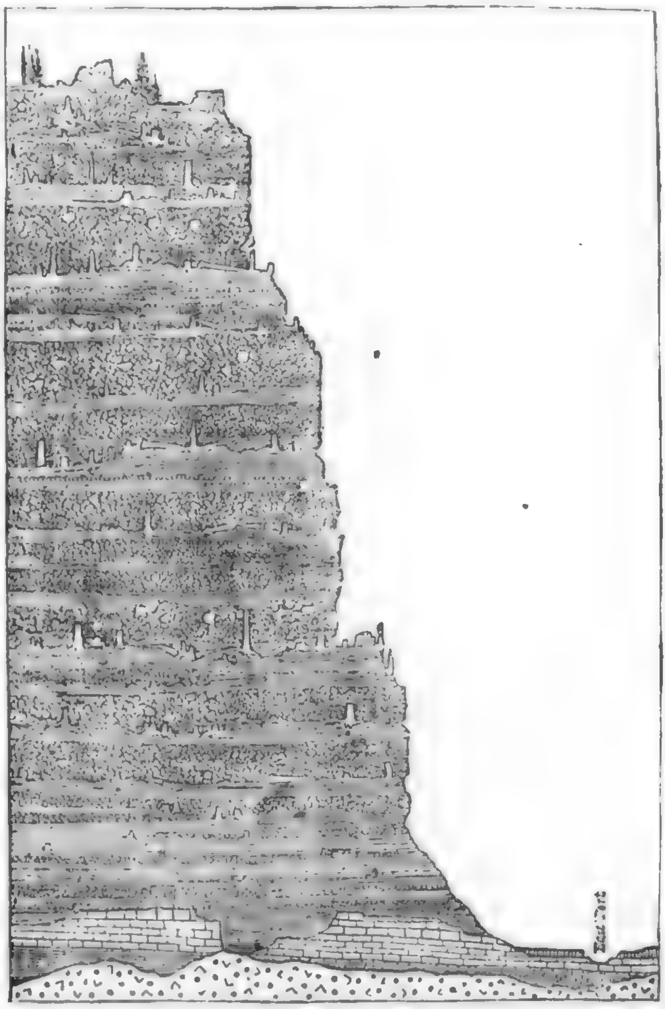
Days passed, and Elfleda kept her secret. We spent part of every fine day under the oak, and Elfleda never failed to listen and watch in uncontrollable excitement for a sound that never came.

Ann strongly objected to these proceedings on the score of her mistress's delicate health, but she was never heeded.

I kept secret but vigilant guard over the grim heroine in the hope of catching her napping, so as to have a case against her black enough to secure her dismissal; but her integrity was inviolable, or she was too cunning.

Meantime Elfleda's secret sufferings were affecting her health. In the morning she rose unrefreshed, as from a sleepless couch; she ate little, and that perforce; her spirits were unequal, her movements growing more and more languid. She was pining away before my eyes. I was at my wits' end. A fever of apprehension beset me. I felt as if a calamity was hanging over my darling. I wrote to Mr. Ashburnam to come home.

The day I looked for him was a wild and stormy one



FOSSIL FORESTS.— AMETHYST MOUNTAIN.— SEE PAGE 376.

There was no word of going out that morning. Elfleda and I were in her own pet parlor, that charming room prepared for his bride by the devoted Philip.

The house shook 'neath the shocks of the roaring wind, and the sound of the blast through the surrounding trees came to our ears like the rushing of great waters; a dim and wintry sky lowered overhead.

Elfleda was restless. She tried, poor thing, to settle herself by my side at one of the various bits of feminine employment which were temptingly scattered around us, but an invincible fascination drew her to the window, and she could not rest, for edging over to one or other of them, and gazing long and earnestly upon the wild scene without.

I thought of the traveler flying alone in the railway-car toward us, nearing his journey's end, and amusing himself by speculations upon the meaning of his abrupt recall; and instead of relief, the thought only disquieted me with the keenest anxiety as to whether I had done well in taking the law into my own hands, as I had.

How little Elfleda dreamed of what was to come that day. I noted that Ann McEvoy kept uneasy watch upon our movements that stormy morning. Twice she came to her mistress with some puerile mock message. I wondered whether she apprehended our going out for a walk to the oak; and if so, why not?

The hour for Mr. Ashburnam's arrival approached; my uneasiness increased. Fearful of betraying it, I went to the piano, and occupied myself with the most intricate music I could find. I played myself calm, and gradually got interested. I played a long while; then, happening to look round, I found that I was alone.

Expecting Elfleda back every minute, I returned to the theme which had so pleased me, but music had lost its charms. The image of my darling came before me, and the mystery of her unhappiness took gradual and entire possession of me.

As she had done, I wandered from window to window, stopping at each to gaze upon the wild scene without; the weird voices of the tempest, and the blows of the blast upon the house intensified my agitation to agony; in the presence of Nature's ruthless course, the direst misfortunes seemed possible.

Alas! had I done well to bring her husband home unknown to her?

It was with a rending heart-pang that I saw my darling suddenly emerge from the fringe of the shrubberies, and come flying toward the house, bareheaded in the storm, her garments streaming—fleet as a spirit, and as white as death. She came directly to the window where I stood. I opened, trembling, and drew her in quickly.

"Come with me, Miriam, quickly; she has gone up yonder!" panted Elfleda; "I thought she might, and she has. Come, we shall see for once what she wants there."

I asked for no more, but flew for wraps, and made her warm and safe; then she put her little cold hand in mine with a grasp like naked nerve, and we escaped through the window like frightened fugitives. Certainly, had Ann McEvoy's factotum, the under-servant, observed our flight, she might have reasonably thought us half crazed to take the air on such a day; for as we toiled through the tormented trees, it was as much as we could do to keep our feet, and our breath was almost gone.

Still, we made our way through every difficulty until we reached the bottom of the hill, then Elfleda stopped me to say:

"I want to get there before her, and unseen—we must take another path—can you to climb a steep ascent?"

I smiled reassuringly—of the two I was surely the stronger then, for excitement and haste made my companion tremble like an aspen-leaf. She led me round behind the hill, and up we scrambled a zigzag path that brought us to the lee side of the oak, the broad trunk of which completely concealed us from the usual approach.

Arrived, I sank exhausted upon the seat, but Elfleda stood before me, in an attitude of listening, her hand raised warningly, her wild eyes holding mine imperiously.

"Listen, Miriam, listen," said she, "and tell me if you hear any other sound than the wind and the trees?"

In breathless expectation, I bent my ear to listen.

Never before or since have I experienced the utter dread, the creeping flesh, the freezing marrow, that I endured while we waited thus for a sound that I could not even define to myself.

I could only look in her pallid face in dismay, and strain my ear toward the fierce din of the elements.

At last I heard it, rising low and mournful, swelling louder and louder—a long, wild, human cry, that ended in a gasping, choking moan!

Elfleda's eyes held mine imperiously until the last murmur died away, and the rush of the wind was all the sound we heard; then, as I stood up in terrible agitation, she caught my hands in a convulsive grasp.

"Speak!" she implored.

And at that moment "Faithful Ann" came round the tree, panting, disheveled, her hair blown in elf-locks by the wind, but laughing to herself.

She screamed when she saw us, and staggered backward, sinking on the seat in a heap; and with her came another cry, rising high above the tempest, swelling louder and louder, and ending in a choked and broken moan.

"In the name of Heaven! what is that?" I cried out in ungovernable terror.

To complete my consternation, Elfleda burst out with a shriek of joy:

"She has heard it! There *is* a cry! And *I am not going mad*," said my poor girl, in a frenzy.

I caught the truth in a flash.

That guilty, cowering woman there had tampered with her young mistress's reason in very hate and envy.

"Certainly I have heard it," I said, "and so has your servant? Have you not?" I demanded, sternly.

Rage, fear and bitter chagrin convulsed her evil countenance. She closed her lips, and would not speak.

"My own dear Elfie," I soothed my trembling darling tenderly, "I see that you have been made the victim of a bad woman's hatred. But the truth has come to light at last, and your trouble is over."

"Oh, I do thank Heaven for my reason!" exclaimed Elfleda, with a great gush of tears. "It was so dreadful to think that I heard a sound that no one else heard—that I believed in an illusion! How could you wish to do me such a cruel wrong, Ann?" she asked her handmaid, with a natural burst of indignant wonder.

Ann rose up like a fury, her green-blue eyes gleaming with all her heart's hot hatred of the young wife.

"If we talks of wrong, Mis' Ashburnam, which of us two has done the worst wrong to the other? I was here long, long afore he efer saw yer face, an' I could mek him as comfertible and happy as the day was long. I was a decent Highland gurl, an' he thought the worl' and all of me; and I might—och! woman, who wanted *you* here? You've taken my place from me."

She ceased her astounding disclosures, and burst into a fit of hysterical crying.

Angry and shamed as I was, I could not but feel sorry for the poor old creature when I saw her tearing her sparse locks out in handfuls, while the bitter tears streamed down her convulsed face.

Elfleda listened in speechless astonishment, quite conscience-smitten at the wickedness she had been guilty of.

"But, Ann, how could I know?" faltered she.

"Nonsense!" I interrupted, impatiently; "Ann knows well that she was herself solely and entirely in the wrong. And now, if you please, confess what the origin of that dreadful voice is?"

Ann turned upon me like a scorpion.

"Confess, is it? Thank ye, miss, I'm none of *your* servants whatefer, an' you an' me has nothing to say to each other."

"What! what! what! Ann on her high horse?" cried a laughing voice beside us, and Philip Ashburnam strode forward, all aglow from the buffetings of the blast, and from the delight of his heart at getting home.

What a scream Elfie gave! How she flew into his arms. How she cried, and laughed and burrowed her little face into his breast, while his broad hand stroked her lustrous yellow hair, and he bit his lip to hide its quivering. And, oh, fie! how "Faithful Ann" writhed and squirmed under the pangs of jealousy, while she watched them with eyes eloquent of blood and murder.

In pity for her, knowing how merciless a man can be when he discovers that his confidence has been abused, and the beloved of his heart rendered wretched in his absence, I touched the rapt wretch on the arm, and recalled her to herself.

"If you are wise you will go," muttered I, significantly.

Without a word or look she turned and vanished round the oak, and we saw her no more.

"Faithful Ann" was "played out." Her fidelity was "a fraud." It could not stand a young mistress.

It takes half an angel grafted on to the modern bachelor's housekeeper to keep her faithful after the bachelor becomes a Benedict.

Explanations brought the following facts to light:

The very day after Mr. Ashburnam's departure, being blustery, though not unpleasant, Mrs. Ashburnam went for her customary walk, and climbed to her favorite aerie on the hill. To her wonder and terror she heard the mysterious voice shrieking like a dying woman, and ran back to the house to ask Ann the meaning of it.

As that middle-aged personage had not been in the habit of indulging in such active exercise, she had not been up to the oak-tree and knew nothing about voices and such like "warlocks"—or so she affirmed; but she agreed to accompany her mistress thither and give her the benefit of her senses.

Having arrived at the top of the hill, they had to wait a long time before any sound came, for the wind was dying down, and during this period of expectation, Ann's jealous mind was busy.

When at last the strange sound rose clear and thrilling upon a sudden gust, and her young mistress turned her startled eyes upon her, she looked utterly unconscious. When questioned: No, indeed, she had heard nothing. Was Mrs. Ashburnam in earnest? Had there been any sound? In short, the treacherous reptile had solemnly asserted that she heard no cry, consequently Mrs. Ashburnam must be either dreaming, or under a startling illusion.

The innocent girl believed "Faithful Ann"—she could not conceive of such wickedness as falsehood under the circumstances. She began to doubt the evidence of her own senses, and to suspect herself of hallucination.

The fatal point was that Elfleda's own mother had once been insane, though only a temporary aberration after long and violent sickness; and poor Elfleda was ready to believe herself stricken on very insufficient grounds.

Ann warned her to keep the matter to herself, "lest folks might think her crazed," and from that hour began to treat her with an ostentatious pity and forbearance that would soon have worked its purpose, combined with her own constant nervous excitement and dread of herself.

Inspired by the despairing hope that my society might restore her to her usual health, and also by the unconfessed suspicion that Ann might not have chosen to hear the voice, and that I would, Elfleda sent for me; and Ann's dismay was patent when I unexpectedly arrived, confirming Elfleda's doubts of her.

Every day she led me to the fated spot, in the hope of hearing the voice while I was with her; but she never heard it again until to-day, and, of course, imagined that she never could have heard it at all.

When Elfie had poured out her whole trouble to her husband, he listening with an occasional quiet smile lighting up the deep displeasure with which he learned of his vaunted housekeeper's treachery, he said:

"And now, what do you imagine caused that ghostlike voice?"

Elfie shook her head with a shiver. There was no fun in the subject for her; she had suffered too much.

But she suggested an entombed heir, or the family banshee, and a variety of such traditional mysteries.

He sprang up the ladder which Elfie had shown me the first day, and, having reached his reading-chair among the branches, ran his hand into a hollow stump of a branch close by the trunk, and then gave a shout of triumph.

"I thought I could play the ghost," laughed he, scrambling down to us with something in his hand.

He showed us the discolored and moss-grown section of a flute.

"When I was a boy," said he, enjoying our amazement, "I carried every favorite accomplishment up to my aerie there, among them my flute. I used to practice up there by the hour, safe from critical ears; and when my flute broke up, I tried my hand at getting up a banshee's wail with this link of the instrument, which I drove through the decayed bark of that hollow branch. When the wind blew in a certain direction, it produced the unearthly cry you heard. But it was not once in a month that it gratified me, and I soon forgot my-banshee, and left it there when I went to college.

"The flute was soon choked up with moss, and how it suddenly resumed its wailing I can't say, nor how Ann found the solution of your mysterious death-wail, my little wife, for I'm very sure I never regaled her with reminiscences of my boyhood.

"Yet, stay! It was the day after I left home that you heard it first, was it not, Elf? And Ann had her urchin nephew here for a week about the time. Then I consider the problem solved. That small boy spent his holidays in climbing every tree upon my land, and the oak assuredly did not escape his investigations. Also, I used to hear him prattling by the hour to his aunt, quite undaunted by her grim taciturnity; so I believe he told her of his interesting find in the oak-tree, and how he had cleared it out so that it could wail as beautifully as any banshee. Probably she heard with but half an ear, and

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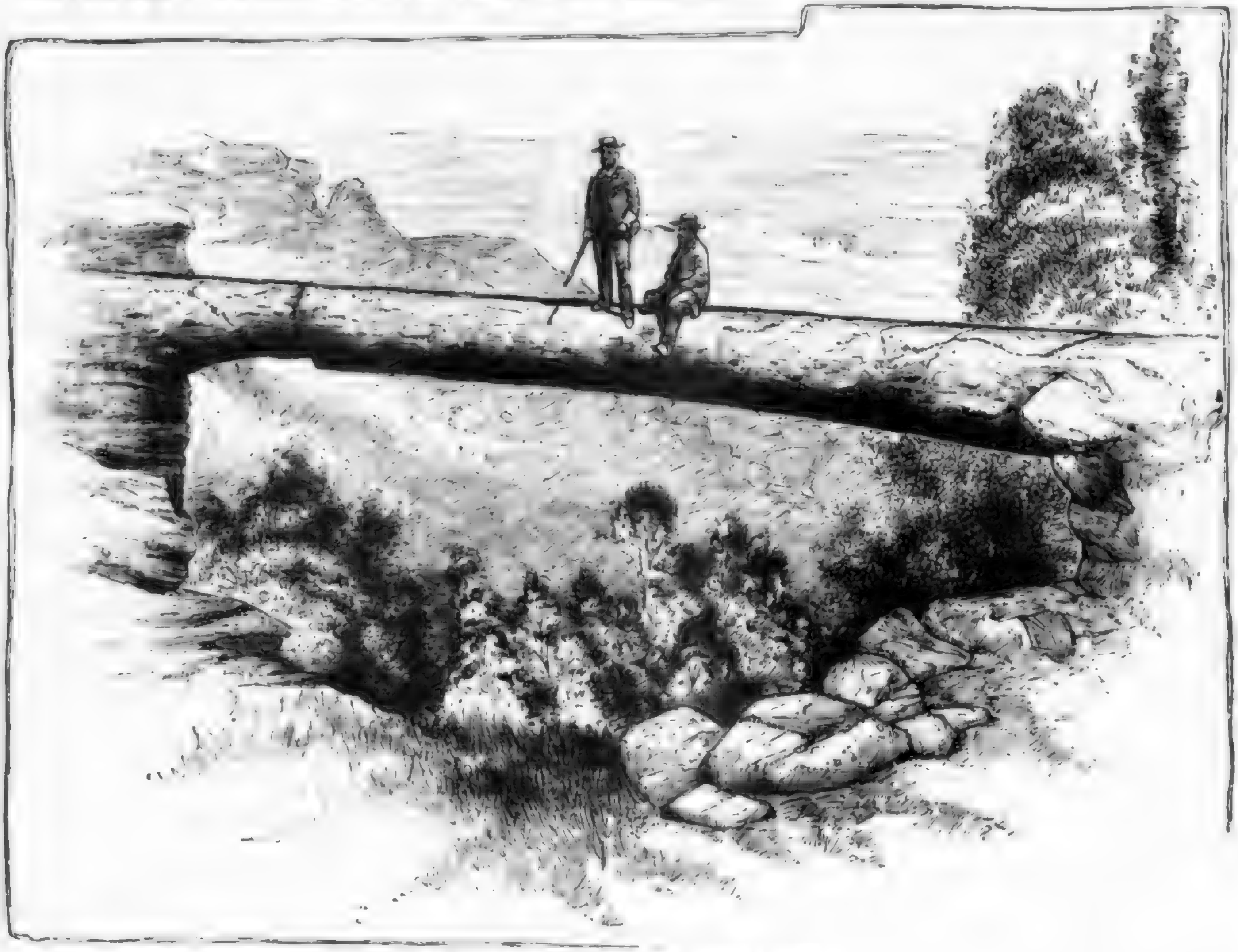
thought no more of the boy's chatter until you came to her with the story of your fright, and then the malicious idea occurred to her to horrify you by declaring that she heard no sound.

"She knew that only on windy days could you hear the cry, and felt safe as long as she imagined you would not dare to confide your illusion to Miss Summerson. But when she saw the storm to-day, her fears awoke, and she could not be at ease until she had stolen up here to destroy the evidence of her falsehood. And oh! what a disappointment to come upon you both, listening together to the sound which she had solemnly affirmed she could not hear!

"Oh! the rage with which she must have seen that her cruel power over you was gone, that she had betrayed her own guilt, and that she was 'played out' in this community! And what would I not have given to catch the old witch in the act of climbing up my ladder at the risk of her bones! Ha, ha, ha!"

And the rogue laughed till he cried, while the woods rang again, and the wind roared its hoarse "Ha, ha, ha!" in sympathy.

Catching sight of the glitter of tears in his sweet wife's eyes—though she was laughing, too, to please him—he snatched her to his honest heart, and gave her a true lover's kiss; then off they whirled round and round the old king oak in a merry, mad waltz, while I looked on admiring.

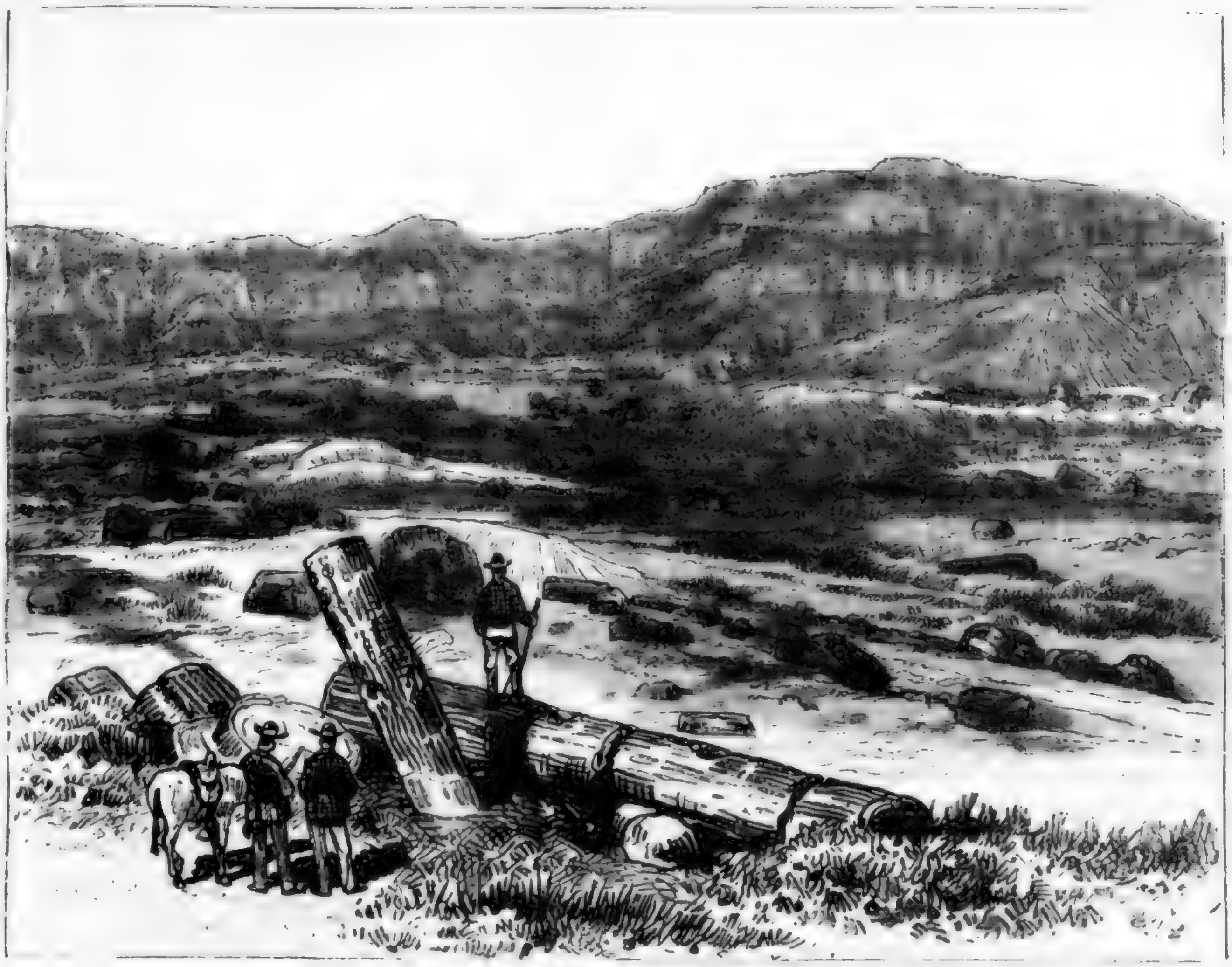


THE NATURAL BRIDGE IN CHALCEDONY PARK.

STONE FORESTS.

By C. F. Holder.

Some years ago, a party of survey and prospectors came to camp one night in a small, but picturesque, cañon. Lofty mountains reared their peaks on all sides; a fine stream ran down the incline, and, altogether, the locality was one of the most attractive to be imagined. The genius of the kitchen was an old colored man from Virginia, who had never been west of his own State, and to whom the Wild West was a country of mysteries. As soon as the tents were pitched, the old man took his ax and started on a tour for wood. He did not have far to go, as the sides of the little cañon were covered with logs and parts of trunks, limbs and branches, as if some whirlwind or cyclone had distributed them everywhere. The old darky selected one of the former, and struck it a powerful blow. The ax glanced, the blow being followed by a stream of sparks. "Some one's dun driv' a nail in dat ther' log," quoth the old Virginian; and, selecting another side, he again struck the log. This time the ax glanced, and flew from his hand in a blaze of fire. The old man was now startled. He put his hand on the trunk; it was as cold as iron. He struck another; it was as hard as stone. He essayed to lift a small trunk; it would have required an ox to move it; and, finally, thoroughly terrified, he dropped the ax and started for camp, declaring to the party that the place was voudooed or bewitched, and nothing would shake his belief. To see trees and limbs lying around as natural as life, but turned into stone, was too much for his credulity. The old darky had discovered one of the many—or several—stone forests that form one of the greatest wonders of



VIEW IN CHALCEDONY PARK, ARIZONA.

the Western country, and that are found, differing in character, in many parts of the world.

Fossil trees, so-called, are to be found in almost any locality. They have been unearthed in Brooklyn in laying sewers, and nearly every town or city has its collection of silicified wood found in the neighborhood. But while these are common, entire forests are comparatively rare, and impress one with the feeling that some mighty cataclysm must have occurred to have produced such universal ruin in so restricted an area.

One of the most remarkable of these stone forests is the one known as Chalcedony Park, in Apache County, Arizona. The term *park* gives an erroneous impression, as it is merely a large area covered with the agatized and jasperized trunks of trees, presenting from a distance a particularly barren appearance. The Park is now in the line of travel, and being one of the curiosities of the Western country, is more or less visited. It lies on the line of the Atlantic and Pacific Road, through Arizona, and can be approached from Holbrook, while the nearest station is Billings, a section-house only; but it will not be long before Chalcedony Park will have a hotel, if the stony trunks are not all carried off in the meantime. Some enterprising Yankee will, perhaps, build a hotel of the trunks themselves, and make his fortune. Leaving the section-house, which is in charge of the Brothers Downey and a cheery woman—the wife of one—the trail is taken direct for the forest, leading about south from the track, through three miles of sage-brush and the land of the omnipresent rabbit, over a series of sand-hills, perhaps seventy feet in height, and we are in the stone forest. Distance does not lend enchantment in this case, as a hundred yards away the ground appears to be covered with dark trunks of trees, broken into various lengths and presenting nothing remarkable in their appearance except their presence in such great numbers. To the north rise the peculiar sand-hills, washed into the curious shapes that are the characteristic of the country, while below them are strewn about the parts and disconnected sections of a million trees, occupying, perhaps, an area of a thousand acres. If the stony remains are not attractive at a distance, one is well repaid by a close examination; as, standing near them, the chips and sections blaze with an indescribable brilliancy, and as the sun strikes them, one might well imagine that here was, indeed, the wondrous valley of diamonds that Sindbad the Sailor found. In the blaze of colors and scintillations, we seem to be looking into some gigantic kaleidoscope; every color of the rainbow appears to be represented—yellows, greens, purples; now, a rich amethyst; again, a dazzling yellow; making a combination wonderful in the extreme. The trunks vary in length, from chips to solid trees of stone 150 feet long and 10 feet in diameter; and so perfectly are they preserved, that it is impossible to believe that they are formed of stone unless they are lifted, or an attempt is made to remove them. The trees are found in the most remarkable positions; not as they once stood, but projecting from the soil in every possible angle; some lie upon the ground, appearing at a little distance as if perfectly solid for 100 feet, but a close examination will show them to be separated into innumerable sections, many very regular, the result of the alternate action of heat and cold, drought and moisture. Here a log projects from the ground for 20 feet, at an angle of 45°; near by, a pile of sections might be taken for a lot of old and condemned cartwheels, of the kind now used by the Indians, and which are to be seen occasionally at Santa Fé.

In the Park there is an eminence of about 200 feet, from which outlook a good view can be obtained of almost the entire area. From this vantage-ground the size of some of the giants can best be realized. There is one lying at full length, and eight feet through, a small section of which would weigh several tons; and it is estimated that the fallen monarch was originally over 200 feet high. It has also been estimated that the combined weight of all the trunks in the Park would equal a million and a half tons.

Those interested in the locality have named the various points of interest; as, Amethyst Point—where the exhibitions of this mineral are especially fine—Agate Gulch, Fort Jasper, Stone Log Point, the Cartwheel, and the Natural Bridge. The latter is well worth traveling a long distance to see, and is the greatest curiosity in the place—a natural phenomenon well worthy the name and sufficiently remarkable for the Government to take measures for its preservation.

In the Park there is a small cañon about 45 feet deep and 55 feet wide. Over this a tree, fully 120 feet, fell in the long ago, and now, agatized and hard as stone, forms the most unique and remarkable bridge on record. Fully fifty feet clear of space are visible; fifty feet more of the fallen monster are seen on one side, while both ends are imbedded in the sandstone. The bridge is both useful and ornamental, as visitors cross upon it, and where the bark has been worn away the rich hues of jasper and agate are seen, glistening and gleaming in the sunlight. This tree is about four feet through at the largest portion, and averages about three and a half feet.

The resources of this wonderful place for the lover of nature are practically inexhaustible. Some new treasure or beautiful object is found at every turn or step, and probably nowhere in the world can such a wonderful display of color be found. While the outside of trunks is beautiful, the inner portions present an array of wonders, even more remarkable and of an entirely different nature; the broken sections are in one case lined with rare amethysts, while others bristle with crystals of calcite, resembling masses of teeth in a bewildering variety of tints and hues.

Wonderful as they are to the naked eye, the microscope reveals still greater beauties in infinite variety; and more remarkable yet, the most delicate cell-structure of the wood is to be seen, so that the botanist can pursue his studies with ease and certainty. Dr. P. H. Dudley, of New York, has examined some sections from the Park, and states that the trees in part belong to the genus *Araucaria*, and consequently are allied to the beautiful Norfolk Island pine, that is now, I believe, found nowhere but in this small island in the Pacific, though it has been introduced into various parts of Southern California, and numerous specimens are visible from my window, in Pasadena, as I write. It is one of the most symmetrical of the family, and extremely ornamental, and is greatly prized in Los Angeles County.

Other logs in the Park resemble, according to the same authority, the common red cedar (*Juniperus Virginianus*), and from the cell-structure Dr. Dudley was able to decide that the climate at the time the trees were alive must in this section have been mild and uniform. So perfect are the annual rings in these fallen monarchs that no one can doubt their origin. They are as perfectly preserved as if the tree had fallen only yesterday. In the last-mentioned species Dr. Dudley found, according to Professor George Kuntz, that the annual rings were marked by one, two, three or more slightly smaller hexagonal or rounded cells only, the latter not being tubular, as is usually the case. He also noticed that the cell-walls were of a nearly uniform thickness.

Perhaps the most interesting problem that is suggested to the visitor at Chalcedony Park is as to the cause of this general destruction of mighty trees, evidently in their prime, and why they did not decay and disappear after the fashion of trees in general. A careful survey of the ground will tend to explain this. Any one who has traveled over the Arizona country must have been struck with the fact that at one time active volcanoes played an important part in the daily phenomena. I have seen masses of lava, molded into the most grotesque shapes, preserving the same position that it took when flowing from the not-far distant crater, and this can be traced for miles, showing the extent of the damage done.

In Chalcedony Park the evidence of volcanic action is especially apparent; nearly all the trunks that are not flat upon the ground are seen projecting from a mass of volcanic ash and *scoria*, that in turn has been covered with a deposit of sandstone varying from ten to thirty feet, and plainly to be seen in the cañons and gulches.

The tragedy was probably accomplished as follows: Some or one of the volcanoes in the vicinity became suddenly active, and vast masses, consisting of millions of tons of ashes, lava and tufa, were hurled into and over what was then a mighty forest. The weight of the shower may have broken many trees down, or an earthquake felled them to the ground. Be this as it may, the forest was covered, and it is assumed that heated silicified waters, either forced up through crevices by volcanic action, or from springs, percolated through the deposit, cooling on reaching the tree level, and there producing the conditions so favorable for the silicification and preservation of the trees. In referring to this, Professor Kuntz says: "The moisture in the tufa may have effected a partial alteration, as also any waters that may have filtrated, through rains or springs, either hot or cold. Under these circumstances decomposition would be assisted, and much silica be set free. The waters would become charged with this, the silica being held partly in solution similar to that in liquid glass, the silicate of soda of commerce. The silicious water then slowly penetrating the wood buried in the tufa was gradually deposited in the cells of the wood. In this manner the fibres of the wood were replaced by the silica. The process was evidently a slow one, and the trees, from all appearances, were partly decayed and waterlogged when silicification took place. The jasper and agate generally replaced the cell-walls and fibres, and the transparent quartz filled the cells and interstices, especially where the structure was broken down by decay. These cell-centres and cavities produced the conditions favorable not only for the deposition of the silica as quartz, but also for the formation of the crystalline cavities of quartz and amethyst, that enhance the beauty of the material so much. It is evident, from the rich variety of colors, that the waters held oxides of iron, and perhaps manganese, as well as silica; the red color being caused by hematite, the yellows and browns by limonite, and the black by oxides of manganese.

The beautiful character of this ancient forest long ago attracted the attention of business men, and several companies have been formed to utilize the stone in various art work. But the great expense of taking such heavy objects to the East has hitherto prevented any great success, much to the satisfaction of many who prefer to have the Park left in its present shape.

The slabs of agatized wood form most beautiful ornaments when polished, and some of the finest houses in America contain specimens of the stone, and in the future much more will probably be used in interior house-decoration. From the large trees table-tops are made, of incomparable beauty, while the smaller pieces are cut up into slabs and tiles, and a great variety of objects. For over 300 years agate-cutting has been a prominent industry in Oberstein, Germany; but agates of the size found here have never been handled, and would probably be a revelation to some of the foreign workers. Much of the mineral finds its way to San Francisco, where it is polished, the various colors blending in a most beautiful manner, and the stone taking a polish that is scarcely equaled in any ornamental stone known.

All the agatized wood here is not valuable. Of that lying exposed—and in all probability there is a much larger deposit yet beneath the surface—probably not over a thousand tons is available for use in the arts; while for mosaics and extremely delicate work only a small portion could be used. Some of the mineral wood has been sent to Europe, and the most exorbitant prices paid. A single Russian dealer paid $500 for a piece 28 inches in diameter and 30 inches in length. He cut it into a number of table-tops and realized a large sum.

The beautiful vase made by the Messrs. Tiffany & Co., to be presented to the sculptor Bartholdi as a slight recognition of his great work, rests on a base formed of a single section of one of these ancient trees. The stand is a low truncated pyramid 11 inches square at the base, 9 inches at the top, and 7½ inches high.

In many parts of Nevada, tracts have been discovered that have similar attractions. As early as 1860, five large *fossil* logs, as they are popularly called, were found at American Flat, while others were observed at Spring Valley, where the prospectors in hard luck were in the habit of breaking them up to get the good specimens to sell to collectors. In 1861, there was a terrible freshet in Spring Valley, near the old Daney Mine, that finally found its way into the Carson River. After the water had gone through the ravine, a great number of stony logs and stumps were seen, many of remarkable beauty. The finest display is on the side of a deep cañon northeast of what is known as the lower sink of the Carson. Here the wood seems to form a perfectly defined stratum, about five feet thick, and exposed for a distance of over one hundred yards. So natural is this, that from a short distance one can almost imagine that cordwood has been stacked by some woodsman. It is presumed that this layer must have drifted here when the locality was covered with water. The stratum is now covered by a layer of stone and gravel (drift) about five feet deep.

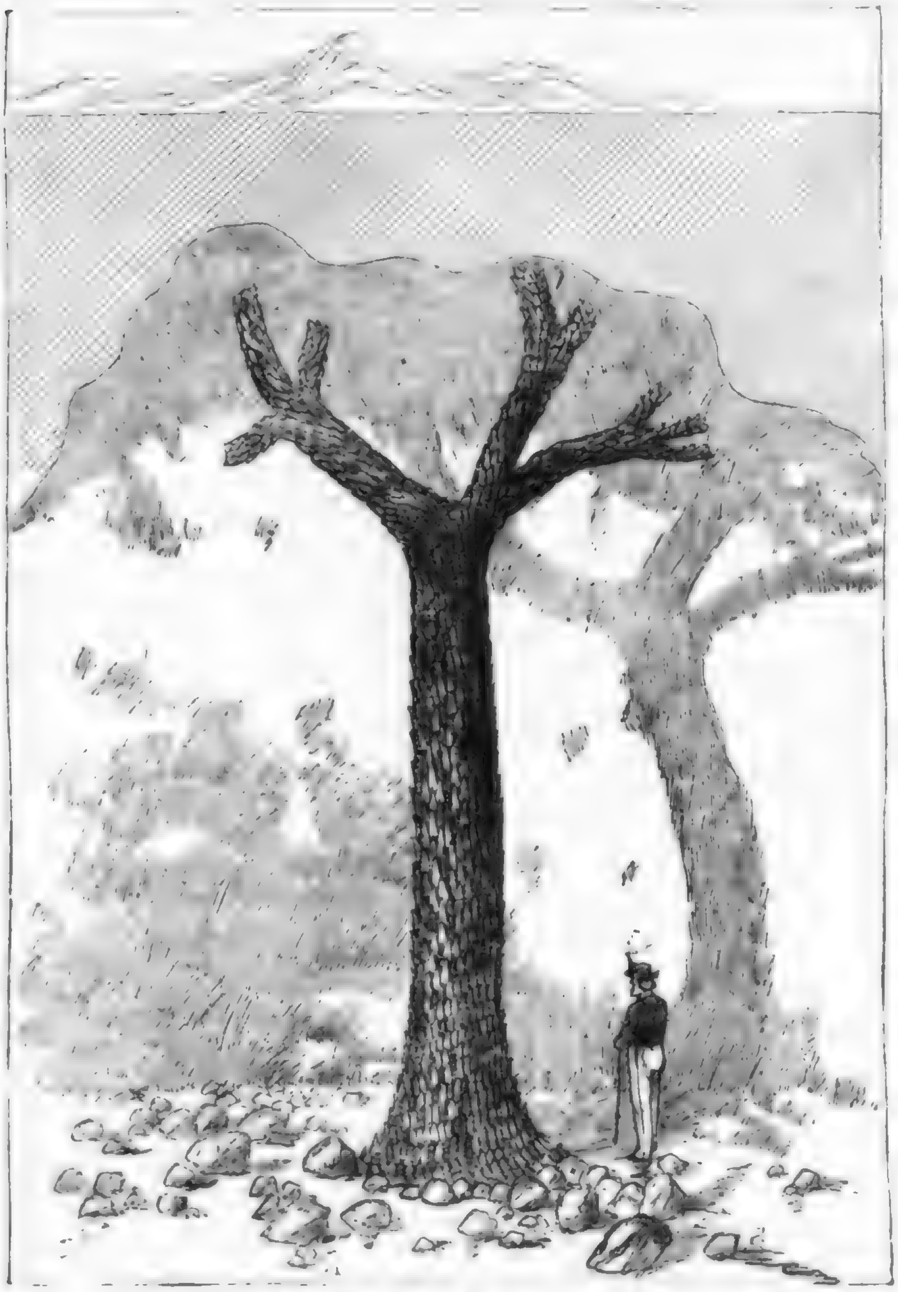
While these broken and crushed forests, with their strange displays of color, are curious and fascinating, they are not as impressive as they would be—if standing and had turned into stone, as it were—in their natural positions in Mother Earth. Such an exhibition can be seen in the valley of the east fork of the Yellowstone. And not only a single forest, but layer after layer, piled one upon another, to a height of nearly a mile, the entire mass being formed of old forests now turned to stone, and presenting one of the grandest sights to be seen in the Western country; a telling evidence of the great period of time that has elapsed since the first seed of the first layer fell to the ground.

In the location referred to, in a section known geologically as the "Volcanic Tertiary," the rocks have accumulated until they are about five thousand feet in thickness, and are made up of breccias, conglomerates, sandstones, and various volcanic rocks and fragments. In nearly every locality where these rocks are worn away and show a section, the remains of fossil trees are found rising layer upon layer, as though at the completion of the life of one forest it had been covered with earth and a new forest immediately started. The wood here is silicified, and the finest specimens of trunks *in situ* have been found in the valley of the main Yellowstone (according to Professor Holmes) at an elevation of 5,000 feet above the sea, in the Gallatin Range, and near the sources of Cañon and Boulder Creeks. Near the divide at Boulder Creek the trunks are found of gigantic proportions, standing exactly as they grew millions of years ago, now exposed on the steep slopes of the mountains, caused by a crumbling and washing away of the conglomerates. Still another fine locality is three miles above the mouth of Gardner's River, at an elevation of over a mile above the sea; and, again, on the south side of the third cañon, nearly opposite the mouth of Hell Roaring Creek. Here a fine bluff of grand proportions rises abruptly, showing on its face the forms of many giants of the forest, still standing, defying time. This promontory is made up of conglomerates with beds of sandstones and shales. Leaves taken from this spot have been examined by Dr. Paul, the botanist, who finds, with Professor Lesquereux, that they belong to the Eocene time of geology. One of the grandest spectacles is shown in the section of Amethyst Mountain, given on page 373. Here nearly half a mile of vertical strata is seen at once. The location is opposite the valley of Soda Butte Creek. At the foot of the mountains flows a creek or river that is 6,700 feet above the sea, while the summit of Amethyst Mountain attains an altitude of 9,400 feet. The forest layers are as distinctly marked as if they had been laid by artificial hands.

Professor Holmes says: "As we ride up the trail that meanders the smooth river-bottom, we have but to turn our attention to the cliffs on the right hand to discover a multitude of bleached trunks of the ancient forests. In the steeper middle portion of the mountains, rows of upright trunks stand out on the ledges like columns of a ruined temple. On the more gentle slopes, further down, but where it is too steep to support vegetation, save a few pines, the petrified trunks fairly cover the surface, and were at first supposed by us to be the shattered remains of a recent forest. In ascending one of the steep spurs that project from the main wall, the strata were found to consist, toward the base, of shales and fine-grained sandstones. Higher up, conglomerates and breccias prevail. Interbedded with the massive, irregular beds of the latter rocks, are always thin layers of sandstones and shales. The sandstones are finely grained, thinly bedded, and contain more or less tufacious material. Their prevailing color is greenish and greenish-gray. They are apparently composed chiefly of materials derived directly or indirectly from volcanic sources. In no case was quartz or other granite constituents found in either the sandstones or conglomerates. Viewing this stupendous piece of Nature's work from below, the strata for the first few hundred feet seem to contain few perfect trees, although from thirty to forty distinct forests can be counted, piled one upon another. At an elevation of 500 feet from the bottom, they begin to be distinct, and from here up show plainly and with great distinctness."

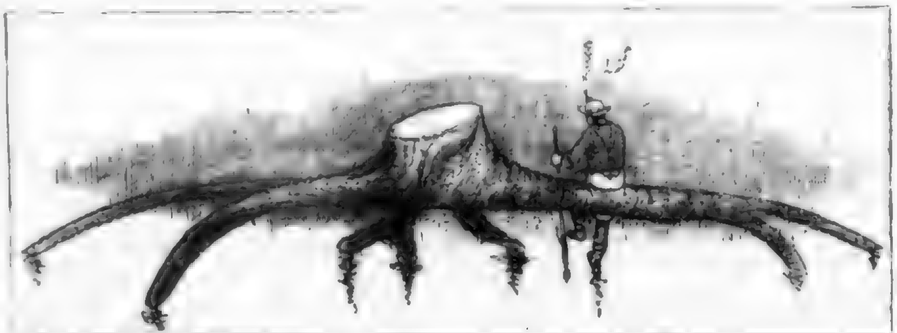
Imagine Central Park, New York, suddenly filled, or covered over, with earthy deposits to a height of twenty

XUM

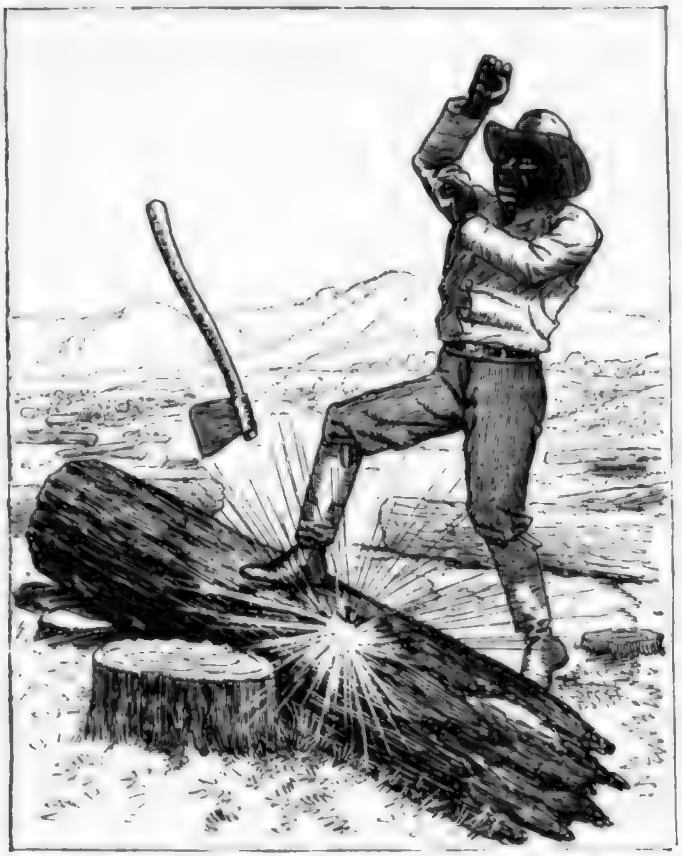


A FOSSIL TREE IN A COAL MINE.

feet. Now allow a large forest of slow-growing trees to attain its full development. Imagine this now filled up, and another forest to start on top, and this to continue until the levels and forests had climbed upward to nearly half a mile, and some idea may be gained of the wonderful nature of this work. Some of the trunks in Amethyst Mountain are from fifty to sixty feet in length or height, and many are from five to six feet in diameter, showing that the forests were of great age; an interesting calculation would be to estimate the age of the trees in each layer, and so form some conception of the time that has ensued since the first forest layer was established. As a rule, the trunks remaining *in situ*, or as they grew, are short, not being more than twelve feet in height, being broken off by the inclosing strata, and it is extremely remarkable that any should have remained intact. In many, the stony roots can be traced down into the now solid rock, presenting a strange appearance. One of the largest trees examined here by Professor Holmes, who made an examination of the locality for the Government, and whose report is of great interest, was twelve feet high and ten feet in diameter. This tree is hollow and broken down on one side, but the bark is preserved in a marvelous manner, so that the grain, fibre and circles of growth are very distinct. The bark remaining is four inches in thickness. That this monarch was covered while standing in the water is very evident, as the stratum about it is a finely grained sandstone, with clay and conglomerate. In the sandstone about this and other trees, vast numbers of leaves are found perfectly preserved as they fell from the trees in the olden time. Many were submitted by Professor Holmes to Professor Leo Lesquereux for identification, and found by him to date from the Lower Pliocene or Upper Miocene, and to correspond, in a measure, to species taken by Professor Whitney from the chalk cliffs. Among them, Professor Lesquereux found: *Arabia Whitneyi*, *Magnolia lanceolata*, *Laurus Canariensis*, *Tilia* (new species), *Fraxinus* (new species), *Diospyros* (new species), *Cornus* (new species), *Pterus* (new species), *Alnus* (new species); also a new fern. Professor Holmes found the silicified trunks as far up as he could climb on the face of the cliff—a perilous undertaking, as one could well imagine from a view of the cut—and from his highest point, with a field-glass, he could still see other layers far above. Referring to another portion of this mountain, he says: "I climbed the rugged walls of the mountain for the purpose of examining a portion of a number of large trees that were visible from below. Trunks and fragments of trunks were found in great numbers, and in all conceivable positions. In most cases the woody structure is well-preserved. The trunks have a tendency to break in sections, and, on the exposed ends, the lines of growth can be counted from centre to circumference with the greatest ease. In many cases the wood is quite completely opalized or agatized, and such cavities as have existed in the decayed trunks are filled with beautiful crystals of quartz and calcite. Our party," continues Professor Holmes, "was so fortunate as to secure some very handsome specimens of amethyst and ferruginous quartz. It is a matter worthy of observation that nearly all the beautiful crystals that occur so plentifully in this region have been found in



ROOT OF A FOSSIL TREE.



A NEGRO TRYING TO CUT UP A FOSSIL TREE.—SEE PAGE 376.

the hollows of silicified trees. The same fact has been noticed in regard to similar crystals in many parts of the West, and notably in the case of the smoky quartz of the Pike's Peak region, in Colorado."

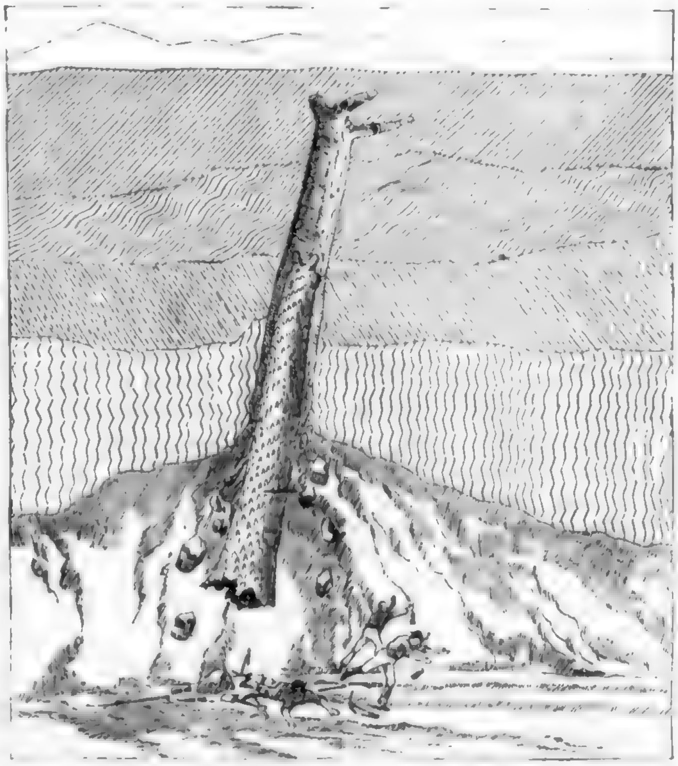
In the Spring of 1886 the writer witnessed a remarkable washout at Colorado Springs, and several days later, after the water had gone down, many fine specimens of fossil trees were found washed out by the torrent.

In the upper third of Amethyst Mountain the layers were mainly composed of heavily bedded conglomerates, and in it were fine specimens, from twenty to thirty feet in height, their roots often penetrating a finely grained and different layer below. It was evident that many of the trees were broken down by vast showers of rocks that were rained down upon them by volcanic agency, and probably a repetition of this, in a great measure, caused the building up of the entire mountain. On the opposite side of this valley a similar order of things exists, only the layers attain there an altitude of 3,000 feet, while in other sections the height is 11,000 feet, probably containing forests to the very top, or for nearly two miles. It is difficult to realize the grandeur and magnitude of this work.

If man existed at this time, and there is no good reason for doubting that he did, he must have witnessed some strange phenomena. Many of the volcanic Tertiary beds were deposited in lakes or great bodies of water, undoubtedly fresh, though their extent cannot be determined, except by remembering that the formations deposited cover an area of 10,000 square miles.

The stone forests—as we may popularly term them—alluded to are of comparatively recent origin compared to many others that are to be found in various parts of the world. The Carboniferous Age, during which most of our coal was deposited, is famous for its remains of this kind, and almost every coal mine has these treasures. In 1844 Mr. Binny, an English botanist, discovered, at St. Helen's, near Liverpool, a mine tree known to science as a *Sigillaria*, nine feet in height. The roots, which were worked out or traced, were ten in number. The same gentleman discovered another tree in the Victoria Mine at Dunkenfold, near Manchester, at a distance of 100 feet from the surface. It was a *Sigillaria* of magnificent proportions, the roots extending away for 20 feet about it. In the mines of this country some extremely interesting finds have been made, especially in the Pictou coal-fields of Cape Breton, in Nova Scotia; and here especially successive layers of forests have been found, telling of the great age of the earth. The most beautiful and remarkable of these trees of the Coal Age was the *Lepidodendron*, one of the commonest forms found in the coal shale beds. Many specimens have been found entire, the perfect tree standing upright buried beneath the earth. A fine specimen was discovered at Newcastle in the famous Jarrou Mine. When laid bare it measured 40 feet in height, and was 13 feet in diameter at the base, and divided at the summit into about twenty nearly perfect branches. The foliage of this tree consisted, according to Dr. Buckland, of simple linear leaves, spirally arranged around the stem, and these appear to have been shed from the base of the trunk by age. These and other trees, when found in mines, often cause fatal accidents. They rest in molds, as it were, and when the bottom portion is cut away unwittingly, by the miner, the stone tree, like an enormous pillar, shoots down on the miners, carrying destruction with its fall.

In the Isle of Portland, quarrymen have opened up some interesting remains of ancient forests. Dr. Buckland, in referring to it, says: "Immediately upon the uppermost bed of limestone, which is a coarse rock full of cavities and imprints left by the decay of the usual species of marine univalve and bivalve shells of the Oolite, are layers of calcareous shale a few feet in thickness, in which no vestiges of marine fossils have been observed, and whose laminated structure and the presence of horizontal seams of carbonaceous earthy matter, with interspersions of vegetable remains, indicate a fluviated or fresh-water origin. Upon these deposits is a layer from one to two feet in thickness, of a dark, friable loam abounding in lignite, and so similar in appearance



A FOSSIL TREE RUSHING DOWN ON MINERS.

to common vegetable earth or mold as to have acquired the name of *dirt-bed* from the quarrymen. In and upon this bed are numerous petrified stems and branches of coniferous trees, and plants standing erect, as if petrified while growing on the spot; the trunks of the trees extending upward into the limestone above, and the vestiges of the roots being traceable into the dirt-bed. The upright stems are in general a few feet apart, and but three or four feet high, and are broken and splintered at the top as if they had been wrenched off a few feet from the ground. They are from a few inches to three or four feet in diameter. Portions of prostrate trunks have been collected indicating a height of 40 feet. In many instances fragments of stems and branches remain attached to the stem. The cycadeous plants occur in the intervals between the upright trees, and the dirt-bed is so little consolidated that specimens, evidently standing in the position in which they grew, may be dug up with a spade. The stratum above the dirt-bed consists of finely laminated, cream-colored, shaly limestone, in which casts of fresh-water crustaceans (*Cyprides*), so abundant in the Wealden, are the only organic remains hitherto noticed. These deposits are covered by the modern vegetable soil, which but little exceeds in depth the ancient one above described, and instead of supporting Cycadeæ and pine forests, barely maintains a scanty vegetation. Here, then, we have the remains of a petrified forest of the ancient world, the trees and plants, like the inhabitants of the city in the Arabian fable, being changed into stone, yet still retaining the places they occupied when alive.

A deposit very similar to this has been found in Australia, especially on the base of a mountain range near Lake Macquarie. Here, on a flat, the trunks of trees are seen extending up through the ground, everywhere resembling the remains of a modern forest devastated by a cyclone. An examination of the lake has shown that a reef a few feet from shore is made up of vertical rows of fossil stems, many of which extend above the surface. The trees on shore are all of large size, many being six feet and over in diameter, and so perfectly preserved that from 60 to 120 annual circles of growth have been counted. Probably every country has its hidden forests, that are only waiting the hand of the discoverer to uncover and display their wonders.

RECENT PROGRESS IN SCIENCE.

To DETERMINE whether an article is of solid silver, *Art and Decoration* gives this test: "Place in a stoppered glass bottle nitric acid, 6 ounces; powdered bichromate of potash, 1 ounce; water, 2 ounces, and apply to the ware to be tested, with the dropper of the stopper, previously rubbing a file over some obscure part of the surface. If the article is pure silver, a clean blood-red mark will be left, less deep and lively the lower the quality. On platinum the test will have no action; on German silver, a fine brown mark appears, removable with a sponge and cold water; on Britannia metal a black mark appears; on other metal a wholly different result takes place to that on silver."

AMONG the curious things now made of paper is a water pipe. The process is as follows: Strips of paper, the width of which corresponds with the length of one pipe section, are drawn through melted asphalt, and wound upon a mandrel. When the pipe thus made has cooled, the mandrel is withdrawn, and the inside is covered with a kind of enamel, the nature of which comprises the main secret of the invention, and is therefore not made known. The outside is painted with asphalt varnish, and dusted over with sand. It is stated that such a pipe will resist some 2,000 pounds internal pressure, though the thickness of the stuff is only about one-half inch.

THE rapid decrease of lobsters on the Atlantic coast has long been viewed with apprehension, but hitherto the efforts of naturalists toward the artificial propagation of this food crustacean have not been rewarded by success. The United States Fish Commission has at last solved the problem, however, and their hatching in great numbers may be expected. The female lobsters carry their fertilized eggs in heavy masses attached to their swimming organs. These eggs may be removed without injury to the mother, and successfully hatched in the same apparatus used for hatching the eggs of the codfish. As they approach hatching the eggs change to dull yellow from the dark greenish brown which was their original color, increase somewhat in size, and change from a globular to oval shape. As we are unable, as yet, to artificially fertilize these eggs, the period of incubation remains unknown. "Immediately after hatching," to quote Prof. T. Ryder's account, "the young abandon the mother and swim about in the sea-water, and will at once begin to feed, even killing and eating each other if food is not soon offered them. Minced crab or lobster meat is greatly relished. The recently hatched lobsters are also attracted by the light, and will always collect at the side of the aquarium or tank nearest the source of light. At night, or if the light is shut off, the young lobsters go to the bottom of the tanks; and it seems that they may then be most actively engaged in feeding if food is placed within their reach." When first hatched the young lobsters are about one-third of an inch long. When from four to six days old they molt for the first time, suddenly increasing in length and bulk in the process. A second molting occurs some eight days later, and a third perhaps ten days afterward, by which time they are four-eighths of an inch long, and have acquired all the limbs and appendages belonging to the adult; yet it undergoes two more molts before it is sixty days old. At that age it is an inch or more in length, and spends its time at the bottom, for the most part, in ambush for its prey. "At present the propagation of the lobster is of the greatest practical importance, and the possibility of feeding and caring for the young in large quantities . . . till they are able to take care of themselves seems to be assured."

THE excessive use of tobacco, it appears, may lead to blindness. Such a case is recorded in a St. Louis medical journal as having occurred lately in that city. A blacksmith, thirty-five years of age, complained of failure of eyesight so serious that he could no longer see to drive the nails in shoeing, and an examination disclosed that his power of vision was only one-sixth of what it should be, and everything appeared to him clouded in a dense mist. His general health was good. For many years this man had been an excessive smoker of the strongest tobacco; and his physician, knowing that nicotian amaurosis was not uncommon in men of greater age, concluded that tobacco was the cause of his difficulty. A few days' abstinence caused a decided improvement, and having given up the habit the man is now fairly on the way to recovery. It is said that smoking is more likely than the chewing of tobacco to produce the injury of the eyes alluded to.

ONE of the most important sources of information in regard to deep-sea animals open to the United States Fish Commission, is the intelligent interest taken in the matter by the Gloucester fishermen. A large number of heretofore undescribed forms of marine life have been saved for the naturalist of the Commission by these men; and their observing accounts have added greatly to our knowledge. The latest contribution is a fine specimen of the large, broad-finned squid (*Stenoteuthis megaptera*) only one other complete specimen of which has been caught, and that in Europe. This was 52 inches in length, and was taken off the southern part of Le Have bank, in north latitude 42° 45′, and near longitude 64°, on a common squid jig, by one of the crew of the *Mabel Leighton*. It was at once given to Captain J. W. Collins, of the United States Fish Commission cruising schooner *Grampus*, who preserved it in a proper manner for deposit in the National Museum.

A CURIOUS OPTICAL ILLUSION.—M. de Parvelle has called the attention of the French Academy of Sciences to a curious illusion of the vision which may account for the apparent oscillation or swinging of stars sometimes observed, and called by the Germans *Sternschwanken*. When the eye looks for some time at a small, feebly lighted body, itself being in complete darkness, the body appears to oscillate or describe certain curves. It is a phenomenon of the subjective order; and appears to be of the same nature as the movement of a star observed when a person leans the head against a wall, and fixes his eye upon the star. The star appears to be agitated in its place and to oscillate rapidly. In order that the motion may be noticed there should be no moon, and the sky should be clear. A lunette takes away the apparent motion.

AN experiment with a new hydro-carbon fuel-burner for locomotion was recently tried on one of the elevated railroads in New York. This burner is about 6 inches in length by 5 in diameter. A spray of petroleum and steam was forced through perforations in the burner, producing a large volume of flame; but through inability to control the draught of the furnace, combustion was imperfect and the experiment a failure. "This," remarks *Science*, "was only one of a long series of experiments with similar devices, none of which has succeeded. As the consumption of coal on the elevated railroads averages only two and six-tenths pounds per horse-power developed, there would seem to be no field for the economic substitution of petroleum at present prices."

THE various scientific societies in Australia and New Zealand propose to hold a combined meeting, probably at Melbourne, in 1888, the centennial year of the founding of those colonies, and to form an Australian Association for the Advancement of Science similar to those in Europe and the United States. This would begin with a membership of 2,000 or 3,000, including specialists in all sections of scientific learning. The meeting would be the occasion, also, of scientific explorations in various directions to objects of natural curiosity and interest.

IN a recent article upon the singing voice, Dr. Morell Mackenzie, an English specialist, gives an explanation of "timbre," which is very satisfactory. He says: The timbre is the special quality by which each voice can be distinguished from all others; in a word, its physiognomy. It depends not on the vocal cords themselves, but on the configuration and structural peculiarities of the parts above the larynx proper. It has been shown by Helmholtz that no note is simply one sound, but is in reality made up of several others of higher pitch. These occur at definite intervals from the primary tone, and are called its harmonics. Now, the laryngeal ventricles, the pharynx, the mouth and the nasal passages, with the various cavities in the bones of the face which communicate therewith, are all resonators, and each resonator has a natural pitch of its own which makes it vibrate sympathetically when a tone of that pitch is sounded. The difference of timbre, therefore, depends on the number of harmonics belonging to each laryngeal note, and on the extent to which they are strengthened by reinforcement from the resonance chambers. Timbre is thus a natural endowment which cannot be acquired, or even cultivated to any great extent. The singer is supposed to start provided with a good instrument, just as the violinist has his Straduarius or Guarnerius, perfect in construction, and with all its parts ripened by time into harmonious sweetness of tone.

EXPLOSIVE ICE.—The explosive quartz of Branchville, Conn., which owes this peculiar property to minute crevices in its mass being filled with partly liquefied carbon-dioxide, has been matched by a specimen of ice formed during very cold weather last January in the laboratory of the University of Virginia. Mr. Mallet, of that institution, describes how the phenomenon took place. The ice was formed in the vessel of a "gasogene," or apparatus for charging distilled water with carbonic acid gas, and it burst the vessel, which was made of thick glass. The ice itself exploded repeatedly and threw off fragments with a crackling sound. Mr. Mallet attributes the effect to the force of the gas contained under pressure in crevices of the ice.

AMONG the celebrations intended in Great Britain next year to mark the jubilee year (or fiftieth) of Victoria's reign, will be an international mining, engineering and industrial exhibition at Newcastle-on-Tyne, to show the enormous progress in the applied sciences during the last half-century. When it is recalled that this embraces nearly the whole history of steam locomotion, telegraphy and electric illumination, breech-loading ordnance, steel making, weaving machinery, power printing and surgical reform, together with almost numberless improvements spoken of generally as "modern conveniences," the magnitude and impressiveness of this exhibition will be understood.

A TEST OF DEATH.—At a recent meeting of the Société Medicale d'Amiens, M. Lessenne mentioned the following as a simple and trustworthy sign of death: After pricking the skin with a needle the puncture remains open, just as when a piece of leather is pricked. On the living body, on the contrary, even if the blood does not come to the surface, as would happen if the person were hysterical, the pin-prick closes at once, and does not leave the slightest trace.

ENTERTAINING COLUMN.

"YES," said Mrs. Seldomhit, "I keep off the evil spirits now by wearing an omelet around my neck."

THERE are people who laugh to show their fine teeth; and there are those who cry to show their good hearts.

CREDITOR: "Can you let me have my little bill?" *Debtor:* "Certainly, but don't destroy it. I may want to pay something on it some time in the future."

THE children were playing at horse railroad. Tommy suddenly exclaimed: "Look here! we've forgotten something. We can't go on unless we buy up an alderman."

A LITTLE girl ate her dinner with so good an appetite that by the time the dessert was placed on the table she could eat no more. She sat silent and sorrowful, and looked mournfully at the dainties piled on her plate. "Why don't you eat, my darling?" asked her fond, anxious mother. "Oh, mamma," cried the disconsolate child, "because only my eyes are hungry!"

THE BARBER'S RESOLVE.

I'll shave this year in silence,
   In silence I'll shampoo;
Without a word I'll cut men's hair,
   And trim their whiskers, too.

I'll force no tonic on him
   Who my skilled razor tries;
A model shaver I shall be—
   Hurrah for the next that dyes!

"LOOK OUT!" exclaimed a man, over whose face a barber was moving his razor; "you are cutting off my mustache." "You didn't tell me not to cut it," the barber replied. "With me a man must always specify." "All right," said the customer. When the barber had finished, the man arose from the chair, approached the artist, and gave him a violent kick. "Look out! you are kicking me!" howled the barber. "You didn't tell me not to kick you. With me a man must always specify," said the customer.

"MA, do you know what *café au lait* is?" *Mrs. Mushroom:* "No, I don't exactly, darling; but I suppose that caffey au lay is coffee with an egg in it."

A NEW YORK physician says: "It is dangerous to go into the water after a hearty meal." And we presume if he did go in after one, he wouldn't find it.

"YES, I will put some finishing touches to it," our editor murmured, as he concluded the reading of a poem on Winter, and jammed it into the waste-basket.

A VENDOR of a universal medicine declares that if his prescription be followed literally a cure is certain: "This medicine is to be taken internally, externally and eternally."

"FATHER, when a man wants to bribe an alderman, does he go to him and offer him a certain sum?" "That depends, William." "On what?" "On whether the alderman hasn't first come to him and fixed his own price."

"SEE here, landlord," said an angry tenant, after he had signed the contract for a year, "this house is full of sewer gas." "Yes; that's what I told you." "Told me?" "Yes. You asked me if there was gas in every room, and I said there was."

THE PRUDENT MAIDEN.—*He:* "At last, my dear Amelia, the happy moment has arrived when I can tell you how I love you!" *She:* "For goodness sake, Mr. Tompkins, don't tell it here!" *He:* "Why? There are no witnesses." *She:* "That's just it."

THERE was once a giddy young beau,
Who thought he a mustache could greau,
   He then asked a belle
   If she thought it was welle,
And she promptly answered him, "Neau."

"SOUND," said the schoolmaster, "is what you hear. For instance, you cannot feel a sound." "Oh, yes, you can," said a smart boy. "John Wilson," retorted the pedagogue, "how do you make that out? What sound can you feel?" "A sound thrashing," quickly replied the boy.

"I'M afraid that son of mine will bring my gray hairs in sorrow to the grave, if I live so long," said a lady to some sympathetic friends. "Do not be afraid, ma," said her young hopeful, poking his head in at the door. "Sooner than have that happen, I'll take your hair out of the drawer some night and burn it up."

TWINKLE, twinkle, little star!
I know exactly what you are;
A glowing ball of burning gas
Revolving round your central mass.

Twinkle, twinkle, little star!
I know exactly what you are;
For to my spectroscopic ken
I see you're only hydrogen.

PISCATORIAL.—*Miss V.:* "You seem to be best man at all the weddings, Mr. B. When are you going to take a leading part yourself?" *Mr. B.:* "Oh, there are as good fish in the sea as ever came out of it." *Miss V.:* "Yes, but don't you think the bait is getting a little stale?"

WHAT HE SAID.—A romantic young lady obtained the desire of her heart—she met a great poet at dinner, and the sympathetic hostess even arranged that she should be placed next to him. One remark, and one alone, did the poet address to the gushing maiden at his side; and it was this: "I like my mutton in wedges."

"I THINK," said Mr. Bronson Alcott, once in conversation, "that when a man lives on beef he becomes something like an ox; if he eats mutton, he begins to look sheepish, and if he eats pork, may he not grow swinish?" "That may be," said Dr. Walker, of Cambridge; "but when a man lives on nothing but vegetables, I think he is apt to be pretty small potatoes."

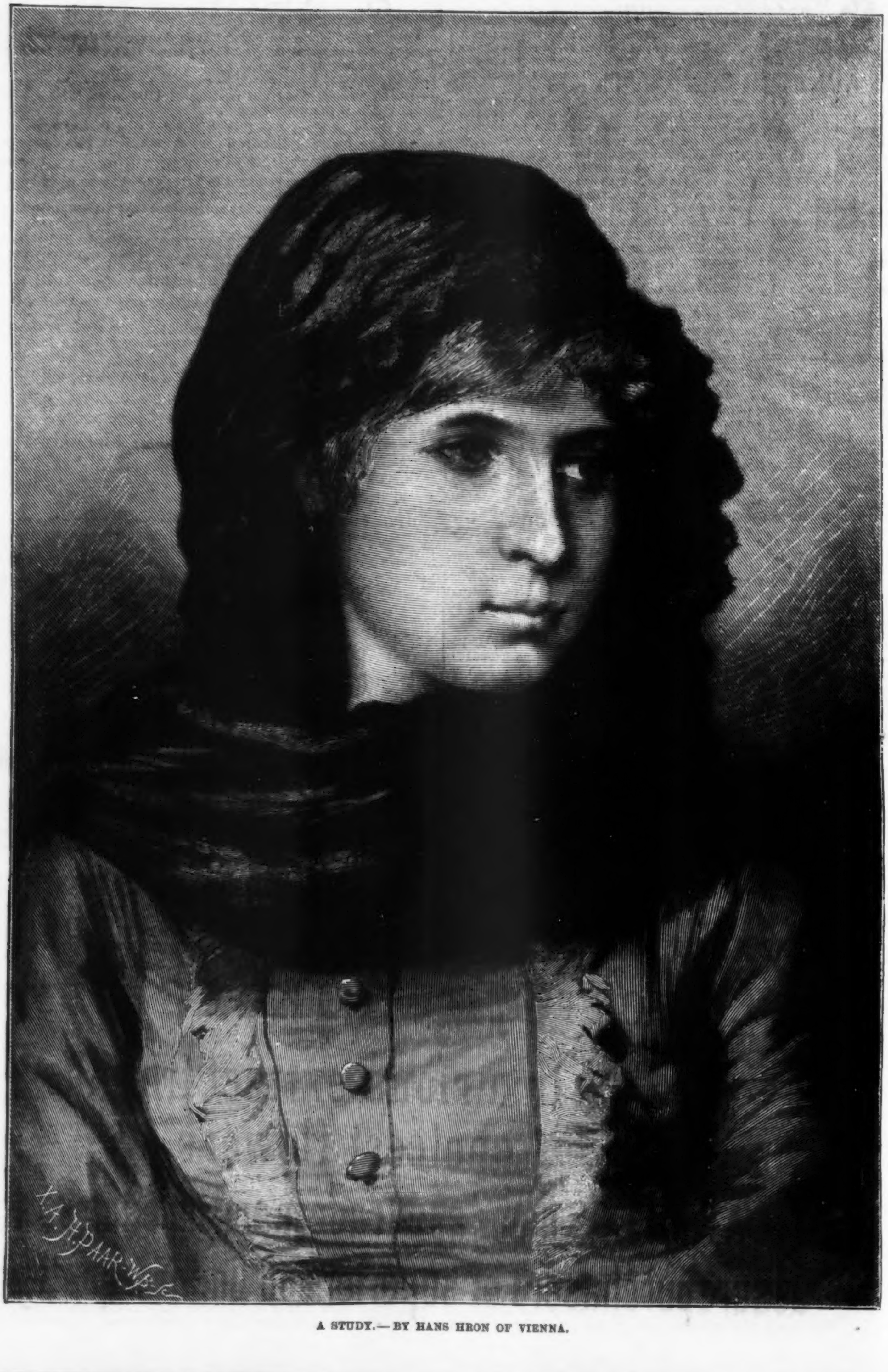
WEDDING-RING POSIES.

The following old posies are copied from wedding-rings of the sixteenth, seventeenth and eighteenth centuries:

Let lyking laste.
As God decreed so we agreed.
Knit in one by Christ alone.
In Christ and thee my comfort be.
First love Christ that died for thee,
Next to Him love none but me.
Let us share in joy and care.
United hearts death only parts.
A faithful wife preserveth life.
This and the giver are thine for ever.
This hath alloy; my love is pure.
The diamond is within.
I'll win and wear you.
I like my choice.
Love and live happily.

WILLIAM IV. seemed in a momentary dilemma one day, when at table with several officers; he ordered one of the waiters to "take away that marine there!" pointing to an empty bottle. "Your Majesty," inquired a colonel of marines, "do you compare an empty bottle to a member of our branch of the service?" "Yes," replied the monarch, as if a sudden thought had struck him; "I mean to say it has done its duty once, and is ready to do it again!"

XUM


X.A. H.PAAR-W.Sc

A STUDY.— BY HANS HRON OF VIENNA.

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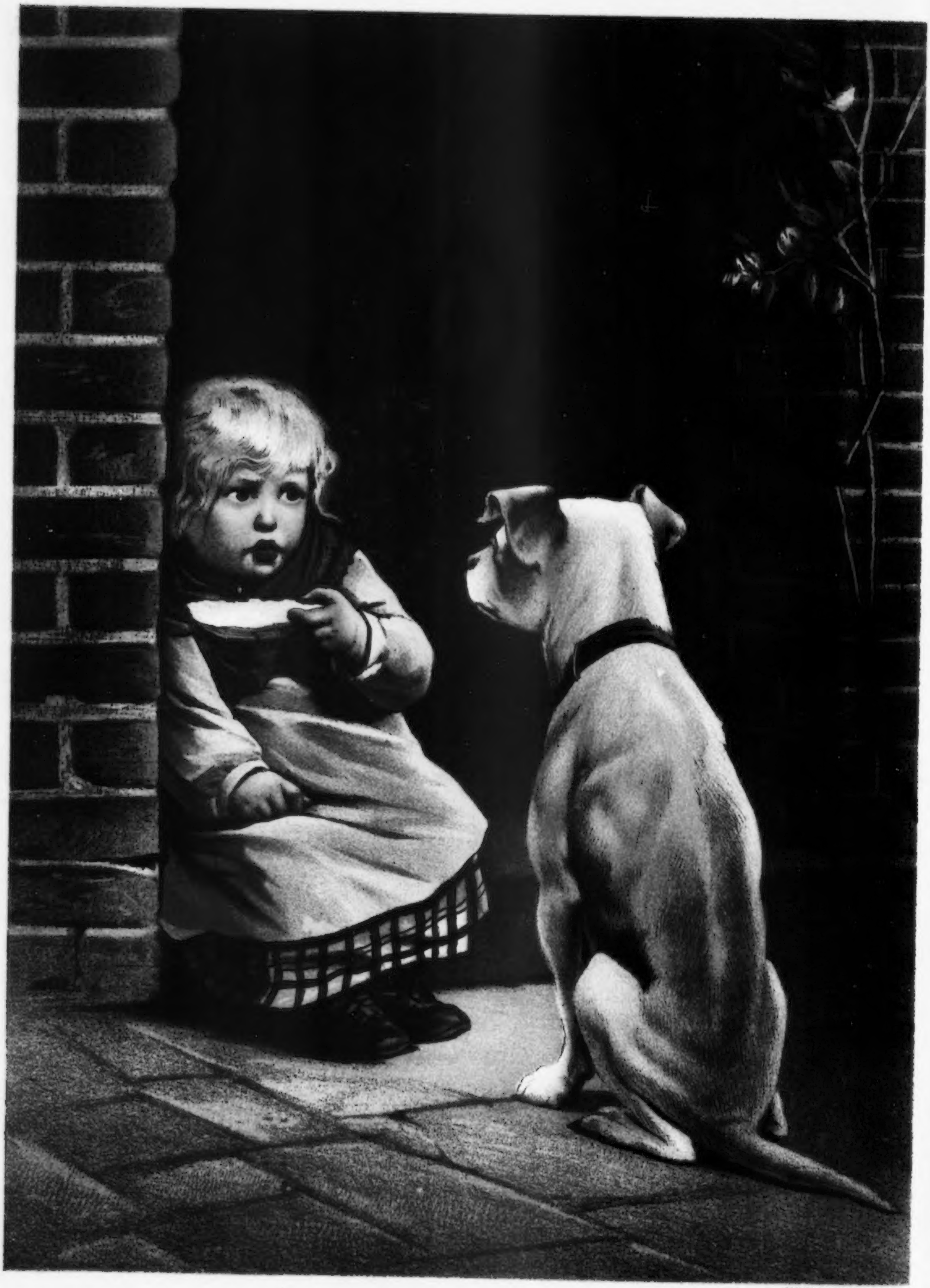

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